CUSHMAN & WAKEFIELD

North Essex Garden Communities

Valuation Analysis

December 2016

The North Essex Authorities wish to provide the following context for the Cushman and Wakefield Valuation Report (EXD/015), which was not originally provided as part of the NEA's Section 1 Local Plan evidence base.

The Cushman and Wakefield Report was one of several sources of information which fed into the Hyas Viability Report EB/13. This is explained in para.1.4 of EB/13. As explained in para. 1.4 of EB/13, the Cushman and Wakefield Valuation Report provided commentary and consideration of the property market in relation to strategic land and potential delivery of Garden Communities. However, the Cushman and Wakefield Report is not a formal valuation report and has been carried out without any detailed analysis of the garden communities proposals (see para. 1.2 of the Cushman and Wakefield Report) for which different approaches to land values need to be taken (see para 2.2 of the Report). As a consequence, the assumptions underpinning the Hyas approach and the Cushman and Wakefield approach are different particularly in that the Hyas report assumes land prices will flex to meet proper planning requirements and the scale and programme of the proposed development. Straight comparisons cannot properly be drawn between the two documents. It was for this reason, and to avoid potential confusion, that the Cushman and Wakefield Report did not originally form part of the evidence base.

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1.1. Scope

To provide valuation advice in relation to development sites for major new ‘Garden Communities’ at Braintree, East Colchester and Marks Tey. The advice is to cover:

- A ‘bottom up’ view on how the land market operates to consider issues of minimum prices, reasonableness of terms, approaches to developable/ non-developable land, phasing of receipts/ tranches and key influences, etc.

- A ‘top down’ view on what the housebuilder/ developer market is paying locally, based upon real life comparables and how the market is operating.

- The market approach to ‘new settlement’ projects and the relevant fixes and flexibilities.

This work requires the researching of comparable residential development land market evidence. The assessment is to reflect relevant planning policy and any uplift in anticipated values (which can be substantiated) resulting from the developments sites forming new ‘Garden Communities’ (with associated better community facilities and quality of environment which would not typically be delivered by developers through planning requirements on a ‘normal’ site).

The commentary/ analysis is to outline the alternative strategies commonly adopted by ‘the market’ for the land acquisition, promotion of planning consent and housing delivery on large strategic sites including ‘Garden Communities’. The commentary and analysis will reflect the proposed approach of setting up Local Delivery Vehicles (LDVs). In the standard market model for strategic residential developments there are three parties involved in the housing delivery, the landowner: the Master Developer and the housebuilder (referred to as the ‘Plot Developer' in this report), the strategy of each being driven by commercial considerations. With the LDVs, it is proposed that the public sector will partly assume the role of Master Developer, in contract with the landowner; as well as commercial considerations, the driver for the public sector will be the acceleration of housing delivery and the provision of an enhanced quality of development, in particular community space, public realm together with a sustainable mix of uses which will deliver a settlement which fully complies with planning policy.

The LDVs are not currently set up and Cushman & Wakefield (C&W) is not privy to detailed discussions/ negotiations as to form which it will take. For the LDV to have the ability to accelerate housing delivery and the provision of an enhanced quality of development it will need to be able to accelerate the provision and funding of up-front infrastructure and to generate quantifiable benefits/ additional value from the quality of place making/ service provision. Without this, the delivery mechanism will be similar to the way in which the ‘market’ will deliver residential-led large mixed-use communities.

1.2. Level of Analysis

This is a residual assessment with inherent risks in that there are a large number of assumptions required to be made and relatively low levels of information. Finding comparable evidence (of actual land transactions) is problematic; in part this is due to confidentiality clauses which are put in place but also the number of unknowns which determine value including the density of development consented or likely to be granted consent, planning obligations and conditions, site constraints and abnormal/ infrastructure costs. This can be difficult to obtain and some transactions are also confidential. In order to provide more certainty to any valuation, the following information would be of benefit:

- Any known ground, environmental, ecological, arboriculture, topographical issues or other constraints to development.

- Any known title and legal issues including any third party land required to deliver development, easements, wayleaves and restrictive covenants.
- Anticipated density and mix of development and optimum unit sizes to maximise development value for both private and affordable housing.
- Anticipated density and mix of development and optimum unit sizes to maximise development value for office, industrial and retail development.
- Anticipated details and conditions of planning consent.
- Policy compliant affordable housing requirement including tenure mix and the acceptability (by the planning authority) of 'Starter Homes' as affordable housing.
- Phasing and timescale for infrastructure provision.
- Relevant comparable evidence of land sales in the area.

For the avoidance of doubt, no advice within this report is to be taken as C&W's formal opinion of value. The commentary relates to scenarios and analysis which is based on information provided by third parties. No values referred to in this report are covered by the RICS Valuation – Professional Standards January 2014 (Red Book). Master Developer – Zones, Floor Areas, Phasing & Infrastructure Costs.

2. Land Owner & Master Developer Contractual Position – Valuation Considerations

There are two 'transactions' which our assessment relates to; the contract between the land owner and the Master Developer and then the sale of serviced land by the Master Developer to individual Plot Developers. This section reviews the land owner and Master Developer transaction (a 'Bottom Up' view).

2.1. Typical Contractual Arrangements

The contractual arrangements between the landowner and the 'Master Developer' on long-term large scale development is likely to be on a number of alternative bases but the key principle is that the land owner will be seeking a significant premium on the Existing Use Value of the land to reflect its strategic value and to capture a significant proportion of the uplift for residential use. The price paid is usually calculated on the basis of a formula that links this to the price paid by the Plot Developer to the Master Developer. Based on this, establishing an actual £ value for this land is not an exact science and the value stated within contracts (as a minimum land value) rarely accurately reflects this price unless the Master Developer has miscalculated when entering into the agreement and the value is lower than the minimum price.

2.1.1. Freehold Transfer

The land will be transferred at Existing Use Value, sometimes plus a margin to represent 'hope' value. 'Hope' value, if reflected will be based on planning policy and advice. The purchaser will consider the chance of obtaining planning consent based on their interpretation of planning policy (usually expressed as a percentage) and the anticipated timescale for obtaining a consent and either developing or selling the land. The purchaser will apply the chances of consent to the value of the land with consent, serviced and accessed and defer the anticipated income reflecting the likely timing of planning consent. This calculation carries considerable risk because it is based on an analysis of the planning prospects over a long period and this is why strategic land is a specialist business model and purchasers prefer conditional purchases.

C&W has been involved in advising on arrangements such as Barton Farm, Winchester for Winchester College whereby farmland with development potential was purchased by the 'Master Developer' at agricultural value and leased back to the landowner on normal commercial terms for farming operations to continue during planning promotion so that there was income to mitigate holding and promotion costs and the Master Developer did not have a management or security responsibility.

The contract terms for the purchase of the freehold interest of strategic land at Existing Use Value will usually provide for an additional sum payable to the landowner when planning consent is granted and the land sold to the Plot Developer for development. This will be based on a share of the net price achieved after deduction of all costs and the Master Developer's pre-agreed return which would typically be 13%-15% Internal Rate of Return (IRR).

The contract for the purchase will provide for an additional sum payable to the landowner when planning consent is granted and the land sold to the Plot Developer for development. This will be based on a share of the net price after deduction of all costs.

2.1.2. Conditional Contract

Here the land is purchased either at a fixed price set out within the contract and payable on grant of planning consent or at a figure to be negotiated when planning consent is granted reflecting the consent granted, density, planning obligations, infrastructure costs and the residential land market at that time. The purchaser is usually obliged under the terms of the contract to promote a planning application and purchase the land on grant of consent.

2.1.3. Option Agreement

The principle difference between a conditional contract and an option is that under a conditional contract, the seller and the purchaser area are contractually obliged to complete the contract if the contractual conditions, normally a ’satisfactory planning consent’ defined in the contract, are met. Under an option agreement , a premium is paid by the ‘Master Developer’ to the landowner for an option to purchase the land at a price either fixed or to be agreed on planning consent and the option will normally be exercised on grant of’ satisfactory’ planning consent. The options can either be ’put’ options whereby the landowner can require the Master Developer to purchase the land on grant of planning consent or ‘call’ options where the Master Developer can require the landowner to sell on grant of planning consent or, more usually, a combination of the two. But often, if they consider the scheme unviable, the purchaser can opt to decline to exercise the option.

The option premium will depend on the aspirations and requirements of the parties. Generally the higher the option premium, the greater the discount to ‘market value’ paid on exercise of the option. If the landowner has a requirement for an early receipt and wishes to minimise risk they will seek a higher premium as it may be some years before consent is granted if at all and the land is sold. The discount to ’market value’ will depend on the size of the premium and the prospects and costs of obtaining consent but is normally in the range of 5% to 25%. The discount to market value is, in effect, part of the Master Developer’s profit providing an incentive for the promotion of the development. It may be agreed that the profit to be used in the calculation of land value will reflect a margin on the costs expended, i.e. effectively a ’contractor’s profit’ and the Master Developer’s profit will be recognised through the discount to market value. Although in most option agreements there will be an obligation to promote a planning consent, it is important that the purchaser has a ‘stake’ in the project through a non-returnable premium. The price to be paid on exercise of an option can be fixed in the option agreement or can be agreed when the option is exercised and is usually subject to a minimum price.

2.1.4. Promotion Agreement

In this case, the landowner appoints the Master Developer to promote the planning consent on their land with the promotion costs funded by the Master Developer and on grant of planning consent the landowner will receive the minimum price usually specified in the agreement, often the Existing Use Value, at the date of the agreement, the Master Developer will recover their promotion costs expended, sometimes with a margin in addition together with any infrastructure costs. The land will then be sold by the parties in tranches to Plot Developers. The net land receipts will be shared between the landowner and the Master Developer on an agreed basis.

It will be in the interests of both the landowner and the Master Developer to maximise the price at which the land can be sold to Plot Developers. They will therefore liaise closely during the promotion period and the landowner is likely to have an input to (or certainly be required to give approval) the planning application to ensure that they are comfortable that the value of their land has been optimised through the planning application. The landowner and Master Developer will agree on the commercial benefits of either putting in infrastructure prior to sale of tranches or leaving the provision of infrastructure and payment of planning obligations to the Plot Developers. If the size of the land tranche is such that it is anticipated that it will be sold to a single Plot Developer, it is more likely that the infrastructure and Section 106 obligations may be left to the Plot Developer but if it is to be sold in tranches it is more likely that the infrastructure to deliver serviced accessed land and the Section 106 obligations which may be required, will be undertaken and paid for by the Master Developer and reflected in the land price paid by the Plot Developer.

Equally, this approach applies to Option Agreements where the Master Developer’s obligations and allowable deductions (to be adopted in calculating the land price) will be set out in the agreement.

2.2. The Minimum Price

The minimum price receivable by the landowner in any of the contractual scenarios identified in Section 2.1 will reflect the Existing Use Value of the land, possibly with additional hope value depending on the chances of obtaining consent. The level of minimum price must meet the aspirations of the landowners and make it worthwhile for them to bring forward their land for development but must also reflect the perceived risks to the Master Developer in relation to planning, legal issues, environmental and infrastructure costs which they will balance against the anticipated revenue from the sale of serviced accessed plots.

An indicative land acquisition cost of £100,000 per acre was used within C&W's assessment for the AECOM 'Concept Feasibility Study' of June 2016 based on C&W's experience of large strategic sites. However, this is clearly not an informed or calculated figure. It is significantly higher than Existing Use Value for agricultural land but should, at least in theory, be lower than the net value of the land serviced and accessed and with a viable planning consent.

The Local Housing Delivery Group, chaired by Sir John Harman in 'Viability Testing Local Plan', advice for planning practitioners' makes several points relevant to 'greenfield sites'. The report states that the appropriate premium over existing use value will reflect the landowner's investment horizons and whether they are content with the existing use of their land. Landowners will be aware of the prospects for securing beneficial permission at some point in in the future and may therefore choose to defer bringing forward such land until they perceive market conditions have improved and/or the planning system is more conducive to an improved return.

The guidance on the reasonable aspirations of owners of agricultural land for the purpose of viability negotiations of planning consents and related obligations is that a greenfield landowner can reasonably expect between 10 and 20 times agricultural land values whilst for the owner of 'brownfield' land, a premium of around 10%-20% over Existing Use Value is commonly accepted . The value of agricultural land in the subject locations is likely to be in the region of £12,000 to £14,000/ acre.

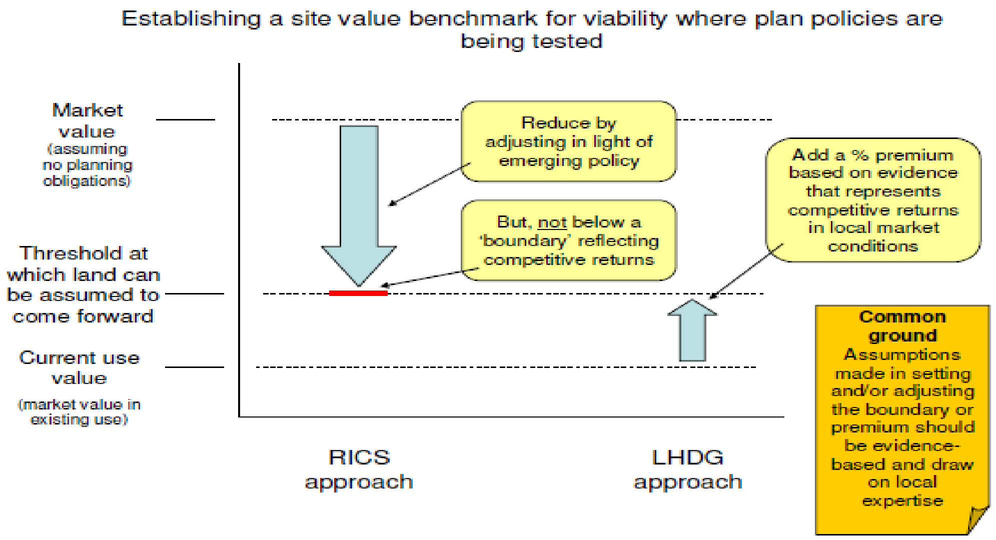
The assumed value uplift on underlying agricultural land values is significant and reflects the value which the planning system can generate. To a certain extent this has become a market expectation, although one that has not been fully tested in case law (in relation to Section 106 viability negotiations). On smaller sites (with less planning risk etc.) the base value per acre is likely to be higher (and a freehold transfer more likely); however, on sites with characteristics as per the Garden Settlement sites, it needs to be reinforced that this is not a figure that is typically transacted but one which helps form the basis/ structure of a conditional contract, promotion or option agreement. There is uncertainty in case law as to whether or not this uplift is reasonable in planning terms (where determining viability for Section 106 purposes) but from a market transaction basis, these multiples on underlying agricultural land values do reflect reality.

Whilst comparable evidence is not conclusive in terms of a per acre value for unserviced land today, C&W has advised on significant schemes in East Anglia where Section 106 agreements (in relation to affordable housing viability) have agreed an input price of £100,000-£150,000 per acre for unserviced, unconsented land. It is essential to reach an agreement between the planning authority and the developer to deliver a scheme that is acceptable in planning terms and yet viable for the developer and this per acre figure will not typically support a fully policy compliant affordable housing provision on new settlements where significant infrastructure costs are likely to be incurred. The NPPF Para 173 states that:

'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.'

Figure 1: Benchmarking Land Value



There often needs to be a negotiation between local planning authorities and developers when fully meeting planning obligations makes a scheme unviable based on the assumed minimum price. Figure 1 illustrates the basis for such an agreement under the RICS and Local Housing Delivery Group (LHDG) approaches; planning obligation are reduced along with a demonstration that the land value is based on competitive returns in local market conditions. In relation to the North Essex Garden Communities, the LDV will partly act as Master Developer which gives it additional leverage to ensure that suitable planning obligations can be secured to deliver a 'Garden Community'. However, if these planning obligations exceed what the landowner considers could be agreed for a standard strategic residential scheme, they are unlikely to accept that the cost of the additional obligations is reflected in the land value (unless they are convinced that will generate quantifiable benefits/ additional value from the quality of place making/ service provision) and this additional cost may have to be borne by other parties (i.e. the public sector).

However this guidance was produced to inform viability in planning and, as such, is not directly relevant to minimum prices in option agreements which is determined by the 'market'. Each agreement is negotiated individually by the parties and is not based on comparable evidence and will vary. But it is important to note that normally the minimum land price is a base figure (not taking into account the time value of money) and the landowner will expect their receipts to exceed this figure. In recent years this has usually been the case because land values have often risen during the course of planning promotion. But it is a risk for the Master Developer because of the uncertainty at the time of land 'acquisition' relating to issues including ground conditions, infrastructure costs, planning densities, infrastructure requirements and prices achievable for serviced accessed land will be uncertain. Therefore minimum land prices are normally fairly conservative to reflect the risk.

The additional land value (after deduction of the premium) is normally paid on grant or implementation of planning consent, assuming this is higher than the minimum price, and will reflect the residual land value at that time. The Residual Land Value will reflect the infrastructure and finance costs. Deferred land payments could be negotiated to assist the cashflow and the deferred land payments will reflect the cashflow benefits. However, the agreement will normally provide for drawdown of the land in tranches to assist cashflow.

The land price to be paid to the landowner on the date defined in the agreement between the Master Developer and the landowner, normally on grant of planning consent, will be determined by an assessment of value. This may be based on comparable evidence which is considered to be the best evidence of value. However, it is only relevant evidence if the circumstances of the comparable sale are known to the parties (which is unusual) and therefore a residual valuation can carry greater weight in the assessment of value. The valuation will reflect the anticipated revenues and costs including finance costs, the phasing of development and the reasonable margin the Master Developer may expect. In many cases, the cashflow of large developments will not be positive until the later stages of the development. This will be reflected in the minimum price and the price paid on the drawdown through the minimum acceptable IRR used in the land trading model. The land may be drawn down in tranches to assist cashflow and maximise land value but if the land forms part of a wider development and there is no equalisation agreement, the valuation will only take account of the land that is subject to the particular agreement and not the wider scheme.

The minimum land value on long-term projects will represent the price at which the landowner would be prepared to sell their land at the date of the agreement with the Master Developer be that an option, conditional contract or promotion agreement. It must also represent the price at which the Master Developer is confident that on the same date, they could sell the land to Plot Developers taking into account planning promotion, planning obligations, infrastructure costs and holding costs and their profit. The landowner will hope that as a result of residential development land price growth exceeding cost inflation the value of their land and thus the eventual receipt will increase during the period of planning promotion and servicing and access provision. The Master Developer will assume for the same reasons that whilst the minimum price may be marginal at the date of the agreement, over a period of time with the benefit of house price inflation over and above cost inflation, the margin between minimum land price and land price payable will increase. In the 'market' the Master Developer will not enter into an agreement with the landowner unless they are reasonably certain that the development is viable and will provide them with their required margins. The intervention in the 'market' by the public sector through an initiative such as proposed through the LDVs will be based on different criteria as the driver will be accelerated delivery of a residential-led scheme which matches the aspirations of the Garden Communities, the improved viability resulting from the assumed lower finance rates, profit requirements and risk thresholds which may preclude interest from commercially driven Master Developers.

2.3. Overage

On large long term schemes the agreement can provide for overage payable to the landowner if the values used for the calculation of the Residual Land Value on exercise of option increases during the development period or planning is improved and in the case of 'Garden Communities, can provide the opportunity for the landowner to reap the benefit of any premium generated by the quality of place making/ service provision as the development proceeds.

2.4. Equalisation Agreements

In many cases, particularly large scale long-term developments with high infrastructure requirements, the cashflow will be negative in the early phases of the development but the landowner will expect to receive their payment for the land based on the overarching 'market value' of the holistic scheme. The payment will reflect the finance costs which in turn reflects the cashflow. In order to improve cashflow, the landowner payments may be phased over a period but will be enhanced to reflect the deferred timing. The rate of interest adopted for the deferment may exceed the finance rate required by a public sector Master Developer.

It is frequently the case that delivery of major urban extensions or new settlements requires land acquisition from several landowners. The Masterplanning will disregard land ownership and as a result, depending on the land use, the value of the land for development will vary. Some land will be designated for open space, or lower value commercial use, whereas some land will be Masterplanned for residential development with a higher net developable acreage. However, that higher value can only be generated by the inclusion of land in the ownership of another party which will have a lower value.

Therefore it is normal for the landowners to enter into an equalisation agreement whereby land receipts are equalised.

In some cases one landowner may own the land providing access to the entire scheme and therefore it cannot be delivered without inclusion of this land in the scheme. This ‘ransom’ is likely to be reflected in the land equalisation agreement usually on the ‘Stokes v Cambridge’ principle whereby the landowner controlling the access is entitled to between 30% and 50% of the uplift in value of the land outside his ownership which could not be realised without his land providing access. In other cases there may be a number of ‘ransoms’ and the landowners may decide to agree an equalisation agreement on a ‘no ransom’ basis.

2.5. Infrastructure Investment

The typical model for a Master Developer is to minimise the upfront infrastructure costs and to ‘drip feed’ investment to release early plots for sale to Plot Developers. Whilst no contractual mechanism is in place as of yet and no firm funding commitment, we understand that the public sector partners are considering committing to funding early infrastructure upgrades which would likely be in excess of what a typical Master Developer would undertake. This could have some significant benefits, not least in relation to:

- A lower cost of capital for infrastructure which improves overall scheme viability although passing this lending rate on is subject to the need to satisfy State Aid rules.
- De-risks the overall development for land owners/ Master Developer.
- Improving the rate of plot development.

Ultimately, for the landowner, the critical element here is the improvement in the rate of plot development. The potential minimum price which is highlighted in this analysis is <u>nominal</u> and only generated (in the majority of contractual arrangements reviewed in Section 2.1) when the Master Developer sells the land to the Plot Developer. Therefore, the landowner is incentivised to receive its return as soon as possible in order to maximise its <u>real</u> returns taking into account the time value of money. The landowner may be giving up the ability to benefit from future value rises the earlier it takes its money but this future ‘hope’ value should be reflected in the minimum land price agreed.

If the public sector partners can demonstrate that their earlier investment in infrastructure will likely quicken the pace of development (which evidence suggests that it will) and that this money is committed and tangible then they could seek to push down the minimum land price to the landowner in negotiation (on the basis that their land will be drawn down more quickly). However, in practice, we consider that this would be very difficult to achieve unless public sector partners could ‘guarantee’ that the pace of development would be increased (which is not in their gift unless undertaking direct development).

3. Master Developer & Plot Developer – Valuation Considerations

3.1. Methodology

Gross site areas, average residential densities, total units, affordable housing percentages, assumed Section 106/ planning obligations, infrastructure costs, phasing and the total commercial floor space in the emerging Garden Community schemes are set out in the AECOM 'Concept Feasibility Study' of June 2016. Whilst we have utilised this information to provide some of the base data for the Plot Developer appraisals in this section, we have just considered sample plots for each site as opposed to undertaking an overall site appraisal for each Garden Community.

Other inputs to our appraisals are based on our experience of market assumptions used by Plot Developers in calculating the viable price they can pay for land. The methodology adopted in the market for the valuation of strategic land is based upon an assessment of the Residual Land Value of tranches of land which is serviced, accessed and 'ready to go' (calculated through use of Argus Developer software or similar) with the tranche size determined by the anticipated rate of sale of completed units.

The underlying assumption is that housebuilders will not generally be interested in sites as large as the proposed 'Garden Communities' because they wish to spread their available resources more widely in order to manage risk. They will prefer to purchase serviced accessed sites with any environmental issues already dealt with, usually free of Section 106 obligations, with clean legal title and of a size where it is appropriate to make a single payment rather than deferred payments based on an expectation that the development period will be one or two years.

Therefore, we have assumed that there will be a Master Developer who will either purchase the land, or enter into option/ promotion agreements with the landowners, promote and secure planning consent, deal with environmental issues, provide infrastructure to the boundary of each plot and discharge the financial planning obligations under the Section 106 Agreements. The Master Developer will sell the serviced accessed plots, the net proceeds of which will normally be shared between the landowner and the Master Developer depending on the structure of their contractual arrangements.

Whilst the prices paid by Plot Developers will depend on density assumptions and the specifics of the local market, there is a reasonable body of transactional evidence against which the outputs from our Residual Land Value assessment can be benchmarked to ensure they match market conditions.

In accordance with standard practice, our methodology for establishing value is to prepare a valuation of a 115 unit scheme for each of the locations as an optimum size of site on the assumption that these plots are serviced and accessed to their boundary without any Section 106 obligations and the 'land take' for the 115 unit scheme will vary according to the density assumptions. For the purpose of this report, we have assumed a base density of 30 dwellings per hectare (dph) as per the AECOM 'Concept Feasibility Study' of June 2016 but also calculated a sensitivity based on a higher density of 38 dph (which we consider to be more realistic for a standard development). The land take for the lower density scheme is 3.8 hectares (ha) and 3.0 ha for the higher density scheme.

The appraisals will reflect the likely rate per square foot (psf) for which completed residential units can be sold and commercial units let and sold as an investment. It will also reflect the value of the ground rent income on apartments and any other revenue. It reflects the costs of acquisition of the land, the unit construction cost including on-plot services, infrastructure, contingency and professional fees, unit disposal costs, finance and the profit that a Plot Developer would expect to receive. The private revenues are based on comparable evidence of other schemes within the location. The affordable revenue is based on the price that a Registered Provider could pay for the affordable housing based on the tenure.

Within this report we have not modelled the Master Developer position in terms of overall scheme viability but this will be an important factor in determining how the scheme comes forward and the timing of this.

3.2. Residential Sales Rate

We have assumed that each housebuilder could sell, in the current market, approximately 50 units per annum (pa) and have based our appraisal on this phasing. Average completion rates of large housebuilders are:

- Taylor Wimpey - Average 41 completions/ annum over 305 outlets.
- Barratt - Average 43 completions/ annum over 380 outlets.
- Redrow - Average 34 completions over 117 outlets.
- Linden Homes – Average 45 completions/annum over 62 outlets.

As noted within Section 3.5, we have assumed multi housebuilder (at any one time) schemes. We have not modelled the overall Garden Community schemes for this report but would note that this is an important consideration in terms of overall development trajectories for the schemes. Whilst not definitive, some of the limitations in the standard housebuilding model are usefully summarised in the extract below from a paper undertaken on behalf of the Department of Communities & Local Government by Glasgow University:

Where land is in short supply and competition between developers is intense, housebuilders must assume the highest possible sale prices in order to make winning bids for land. Such bids are viable only because the release of land is restricted in aggregate terms by the planning system, while the release of houses is managed on a site-by-site basis by builders themselves to achieve the target sales rates underpinning earlier bids for land. Government policy and industry practice have thus combined to encourage developer caution about the ability of local housing markets to 'absorb' new-build supply. This finds expression in unambitious build-out rates.

Developers with cautious build-rate assumptions will benefit from an advantage in terms of the price they can offer landowners assuming that house prices are rising faster than construction costs and the cost of borrowing. If housing demand changes after the point of site acquisition, most developers are generally reluctant to alter their planned production rates. Whether demand rises or falls, most prefer to alter prices or incentives. Companies generally see production rates as a marginal factor that cannot be varied very far from what was originally planned.

Housebuilding companies see themselves as interdependent because local markets are viewed as having finite capacity. They therefore engage in extensive 'competitor surveillance' but seem to limit the impact of the information they collect to pricing and minor design decisions.

3.3. Input Assumptions

- The commercial space on each site will vary but the residential density proposed for each of the sites is a comparatively modest 30 dph, with a variation (to a figure which we consider to be more appropriate) up to 38 dph.
- The Garden Communities programme is based on a proposed affordable provision of 30% on each site.
- The assumed revenue psf for private housing based on comparable evidence is £310 at Marks Tey, £340 at Braintree and £280 at East Colchester based on comparable developments. We

set out below the comparable evidence on which we have based our assumptions on private revenues

- This is higher than C&W's assumptions within the AECOM 'Concept Feasibility Study' of June 2016 and is based on a more granular review of local comparable evidence and C&W's updated market view.
- Affordable revenue is assumed to be £161 psf at Marks Tey, £176 psf at Braintree and £112 psf at East Colchester. No explicit assumption has been made in relation to the tenure mix at this stage.
- The base construction cost is assumed to be £115 psf in line with BCIS rates for 'Estate Housing' with contingency at 5% and professional fees at 8% to reflect standard house types and planning fees for detailed planning applications only.
- The finance rate has been assumed at 6% and the profit at 17% on revenue reflecting typical purchaser requirements
- At this stage, we have not reflected Ground Rents.

Comparable evidence for Marks Tey

Ford Mews, Copford; a scheme of 8 2, 4 & 5 detached houses.

Unit	Unit Type	Price	Status
1	4 bedroom detached	£415,000	Asking
2	4 bedroom detached	£425,000	Asking
3	Two bedroom detached bungalow	£390,000	Asking
4	Two bedroom detached bungalow	£390,000	Asking
5	Two bedroom detached bungalow	£390,000	May 2016
6	Two bedroom detached bungalow	£390,000	Asking
7	5 bedroom detached	£515,000	Mar 2016
8	5 bedroom detached	£525,000	Asking

Arunbrook, London Road, Stanway; a new development of 2, 3 and 4-bedroom new homes to the West of Colchester and East of Marks Tey. The following prices are currently being advertised for the scheme.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Hedingham	3 bedroom terrace	932	£289,995	£311
The Cambell	3 bedroom house	932-946	£304,995-£309,995	£327-£328
The Willow	3 bedroom detached	964	£319,995	£332
The Laurel	4 bedroom detached	1,097	£349,995	£319
The Mulberry	4 bedroom detached	1,273	£399,995	£314
The Yeldham	4 bedroom semi-detached	1,220	£379,995	£311
The Magnolia	4 bedroom detached	1,464	£429,995	£294

Comparable evidence for West of Braintree

Olstead Grange, Felsted Dunmow; a development of 15 houses located on the outskirts of Felsted offering a range of 3, 4, 5 & 6 bedroom detached houses.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Barker	6 bedroom detached	2,523	£835,000	£331
The Weaver	4 bedroom detached	1,956	£685,000	£350
The Gladwin	5 bedroom detached	2,063	£700,000-£715,000	£339-£347

Beaumont Place, Dunmow; a development of 67 3, 4 & 5 bedroom homes with the following units currently available.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Maynard	5 bedroom detached	2,450	£624,995-£629,995	£255-£257
The Greville	5 bedroom detached		£614,995	
The Easton	3 bedroom bungalow		£549,995	
The Flitch	4 bedroom detached		£514,995	

Summers Brook, Flitch Green, Dunmow; 98 houses launched for sale in March 2016 (Show Home followed in July 2016) completing an already established community. All 3 bungalows at have now sold, leaving 3, 4 and 5 bedroom homes available to buy in current and future phases.

Unit	Unit Type	Price
The Yarkhill	3 bedroom detached	£339,995
The longthorpe	3 bedroom detached	£364,995
The Hadleigh	3 bedroom semi-detached	£368,995
The Brendon	4 bedroom detached	£394,995
The Ainswoth	4 bedroom detached	£419,995
The Barrow	5 bedroom detached	£514,995

Bocking Riverside; a development of 20 2, 3 & 4 bedroom homes. The scheme has now sold out with the prices recorded below being the most recently available prices.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Felsted (plot 4)	4 bedroom detached	1,840	£485,000	£264
The Felsted (plot 14)	4 bedroom detached	1,840	£475,000	£258
The Bardfield (plot 2)	3 bedroom link-detached	1,105	£344,450	£312
The Bardfield (plot 2)	3 bedroom link-detached	1,121	£342,500	£306
The Finding Field (plot 20)	4 bedroom detached	1,804	£475,000	£263

Comparable evidence for East of Colchester

Rowhedge Wharf; a waterfront development comprising 2, 3, 4 and 5 bedroom homes with the following units currently on the market.

Unit	Unit Type	Price
26 & 30	2 bedroom terraced	£264,995-£274,995
65	3 bedroom semi-detached	£286,995
63	3 bedroom semi-detached	£304,995
45	3 bedroom semi-detached	£399,995

Avellana Place; a large development of 2, 3, 4 and 5-bedroom new homes in North East Colchester with the following asking prices.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Montrose	2 bedroom mid terrace	797	£239,995-£249,995	£301-£314
The Willow	3 bedroom detached	932	£309,995	£332
The Laurel	4 bedroom detached	1,080	£334,995	£310
The Churchill	4 bedroom detached	1,665	£454,995	£273
The Eaton	5 bedroom detached	1,900	£479,995	£253
The Warwick A	5 bedroom detached	1,847	£479,995	£260
The Cambell	3 bedroom semi-detached	918	£284,995	£310
The Oak	4 bedroom semi-detached	1,348	£339,995	£252

Rosewood; Crest Nicholson have recently launched the final phase of the development. The scheme includes 1 & 2 bedroom apartments and 2, 3 & 4 bedroom houses located to the north of Colchester's town centre. Prices range from £262,500-£335,000. The following units are currently on the market.

Unit	Unit Type	Size (sq ft)	Price	Price psf
The Caldwell (Plot 192)	3 bedroom semi-detached	1,347	£325,000	£241
The Cordelia (plot 206)	3 bedroom semi-detached	1,131	£300,000 Reserved	£265
The Corvedale (plot 187)	3 bedroom link detached	1,140	£335,000	£294
The Jade (Plot 191)	2 bedroom	896	£262,500	£293

3.4. Garden Settlement Premium

There is often argued to be a realisable uplift in sales revenue psf as a result of 'Garden Settlement' status, relating to the (assumed) higher quality public realm, long term management of the assets, a true mix of uses etc.

If C&W were to prepare a formal valuation, we would need to be able to prove the uplift in other similar situations. This would require detailed analysis as to how the settlements will differ from other major residential-led mixed-use developments, urban extensions and new settlements. The early provision of public open space and community facilities could enhance rates of sale and values if the timing and scale of the provision exceeds what could reasonably be required under planning policy.

The information note entitled 'RICS Placemaking and Value 1st Edition February 2016' analyses five case studies and seeks to understand and evidence the relationship between the various design features of large residential scheme, and the end-sales achieved. It takes Land Registry data as well as using site observations, discussions with developers and agents, community groups and planners. It is based on five case studies within an hour's commute of London demonstrating the benefits of good placemaking not just for the high quality of the living environment created but also for the enhancement in the financial value of the dwellings. Key findings include:

- Creating better places where more people want to live enhances financial value and can secure substantial commercial premiums.
- There is considerable disparity in the size of the residential value premium from 5% to one exceptional case at 56%.
- The study broadly found that greater premiums are most widely achieved in areas that already have higher local new-build values. Placemaking was still effective in lower-value areas with the most successful scheme achieving close to 20% uplift on the local market.
- The increase in commercial value is long term rather than short term in nature.
- Placemaking achieved an uplift in commercial value on relatively small homes – suggesting that people will pay a premium to be in a good place even if this means compromising on space.

- Retaining flexibility in scheme masterplans is important in order to allow evolution in design/ best practice over time.
- The early provision of community and other facilities is critical to achieving value uplift; clearly, the viability of these services requires a critical mass of housing to be occupied which creates a delivery challenge on such sites to.

Appendix 4 shows the summary of this analysis.

Whilst the study is helpful in illustrating the potential uplift in values from high quality place-making, the schemes (apart from the Hampton scheme, Peterborough – up to 8,500 new homes being delivered over circa 30 years) are not of a scale which matches the aspiration for the Garden Communities. An uplift in value is often achieved by developments/ new locations which are able to be 'price makers' as opposed to 'price takers'; a good example in the London context is Berkeley Homes who have a track record of premium pricing within areas through high quality place-making (Woolwich Arsenal redevelopment and Kidbrooke Village to name two South East London examples). This is not necessarily something that is bespoke to 'Garden Communities' but depends on the vision of the developer(s) and early investment. However, these are typically developments which link into an urban fabric which is already in place as opposed to having to development everything from scratch. It is illustrative to consider the relative positions of the three potential Garden Community sites to existing facilities:

- East Colchester; acts almost as an extension to the existing town, with the ability to link into community, retail and employment assets.
- Marks Tey; existing transport facilities and some amenities close by but not as linked to an existing urban centre as East Colchester.
- West of Braintree; the most standalone settlement of the three options with limited links to existing facilities and no urban connection to existing settlements.

3.5. Overall Scheme Development Trajectory

The potential pace of scheme development is a critical consideration for land owners and Master Developers. If they go too quickly then they do not maximise profit; clearly, there is a risk in going too slowly as well (in terms of the holding cost of land) but this typically has a lower financial cost. Understanding the potential pace of development is an important part of structuring a land agreement and in facilitating spending on significant elements of infrastructure.

On strategic projects of scale there is often capacity to model multiple house builders working simultaneously on site. If done carefully, this will not necessarily jeopardise best pricing because each housebuilder will target a different buyer demographic resulting in a diversified product mix coming to the market, which minimises the risk of oversupply. The number of housebuilders accommodated can range up to 4-5 subject to considerations of scale and demand. Within each sales plot, we would typically model phasing/ sales as a shallow bell curve, with 1 or 2 brands on site to start with delivering fewer units and working up to more brands and more units before tailing off again. The inclusion of different tenure types (i.e. PRS, Starter Homes and Extra Care housing) may allow for a quicker build out rate without impacting on the sales rate of traditional housing and thus increase overall delivery rates.

It should be noted that all of this commentary relates to private residential housing only and excludes affordable housing. Affordable housing can typically (and this is the C&W assumption for this analysis) come forward much quicker than private housing as the driver of price is the rules and regulations around what is affordable as opposed to the demand and supply dynamics that drive private housing for sale. It can also speed up the phasing of private sales by improving developer's cashflow through early receipts from sale of the entire affordable housing to a registered provider. Therefore, any assessment of what is delivered from a private housing standpoint will have the proportionate quantum of affordable housing in addition (subject to a viability test in relation to if policy levels of affordable housing can be provided).

Whilst the proposed Garden Communities are separate to housing land already identified by the respective Local Authorities, they will sit within the wider context of the housing market in each Local Authority area. Therefore, the relationship to both the historic build rate within the local areas and the forecast need should be reflected upon:

- **Braintree:** the Monitoring Report 2015 for Braintree Council shows that the net supply of units delivered was 409 pa. This is an increase on the 2011/ 2012 figures produced by Braintree District Council Site Allocations and Development Management Policies Plan which set a managed delivery target for April 2012 of 247 additional dwellings pa. This was exceeded with net additional dwellings at 301 pa. In 2012/2013 the net additional dwelling target was 169, which was exceeded with 178 being provided. The Braintree 2015 Core Strategy projects a need (2016-2026) of 824 dwellings pa
- **Colchester:** the Colchester District Council Housing Strategy Evidence base demonstrates that from 2008 to 2013 an average rate of 770 was achieved in the Borough - this is below the local plan annual net additional dwelling target of 830. In 2014/2015 there was some improvement with 943 units delivered but this is still down from 2011 and 2012 levels. It is projected that the need from 2016 to 2026 will be 920 pa.
- **Tendring:** The Tendring Housing Supply and Requirement report (April 2016) sets out a need of 500-600 units pa and agrees on the use of the mid-point (550 units pa) as the Council's provisional housing target for the Local Plan. The Local Plan recommendation is to make provision for an increase of between 9,974 and 10924 new homes over the 17-year period 1st April 2015 to 31st March 2032 to meet objectively assessed housing needs

Within this assessment we have assumed that the maximum absorption rate on each of the sites would be 150 private units pa based on three outlets and thus a Master Developer could sell three plots every two years. The scale of the sites are such that in the future it may be possible to have more than three outlets as the settlement grows, but initially we believe that 150 private units pa is a reasonable assumption. It is a sales rate that Taylor Wimpey and Persimmon, with whom we are negotiating on land west of Stevenage, and Crest at Bishops Stortford are assuming when modelling their schemes in these locations.

This is lower than the rate utilised within the initial AECOM commission reviewing the Garden Communities because the rate in that assessment C&W took account of the proposed delivery mechanism (i.e. including the influence of the LDVs in partnership with the current landowners). Calculating the specific impact of this delivery mechanism and a relatively high level of public sector input is not an exact science and C&W utilised a scenario which accelerates the delivery rate by 50% based on:

- Public sector funding accelerates the delivery of infrastructure and significantly de-risks the overall development for Plot Developers and the Master Developer (with whom it is in partnership).
- Through marketing and promotion of the Garden Communities by the public sector, demand levels are 'deepened' allowing a faster delivery of units without compromising the minimum land price.
- The promotion and inclusion of alternative residential tenures/ sectors within the scheme to widen demand; e.g. self and custom build housing, sheltered housing, private rental stock and Starter Homes. In order to deliver these tenures (particularly at an early stage of the developments) may require additional support from the public sector to ensure it is viable.

3.6. Plot Developer Appraisal (Residential Only)

The Master Developer will seek to negotiate the terms of the planning consent and Section 106 Agreement to ensure the infrastructure and Section 106 obligations and contributions are phased in the most cost-effective way to be delivered when they are required for the sale and development of each plot. We have been provided with infrastructure costs and assumed Section 106/ CIL contributions which we have reflected, but the viable level of provision will be the subject of negotiation. The Master

Developer will provide the infrastructure and sell serviced accessed plots in line with market take up and will make the agreed payments to the landowner in accordance with their agreements. The below calculations relate to the Residual Land Value to a residential Plot Developer only.

The Residual Land Value of a 115 unit plot (circa 3.8 gross ha at 30 dph or 3.0 gross ha at a more realistic 38 dph) as set out in the attached appraisals shows Residual Land Values of:

- £7.73 million (m) in Marks Tey
- £9.72m in Braintree
- £4.90m in East Colchester

Based on 30 dph, this 'breaks back' to a Residual Land Value for the serviced accessed land of:

- £0.82m an acre for Marks Tey
- £1.03m an acre for Braintree
- £0.52m an acre for East Colchester

Based on 38 dph, this 'breaks back' to a Land Value of the serviced accessed land of:

- £1.04m an acre for Marks Tey
- £1.31m an acre for Braintree
- £0.66m an acre for East Colchester

Appendices 1, 2 and 3 contain these assessments (based on a density of 30 dph).

3.7. Comparable Transactions

In the context of recent land sales in Essex and Hertfordshire, these values appear fairly modest, reflecting the density of development Section 106 contributions and other factors and we set out below some examples of recent sales.

When considering serviced land values based on comparable evidence, it is important that the analysis is based on full and accurate information which is not always available. In this event, the Residual Land Value calculations are more relevant.

The Land Values are very sensitive to the level of affordable housing, the requisite infrastructure costs and density of development. The densities in the current model of circa 20 units to the hectare with average unit sizes of 96 sq m is a comparatively low density which might typically be 35-40 dph and this impacts on price. At the lower density a housebuilder would normally build larger units.

- Stansted; the site for 165 units purchased following exercise of an Option Agreement at a gross price before option discount reflecting £141,038 per private unit, with 40% affordable, Section 106 costs of £272,620, abnormal and infrastructure costs of £2m and a density of 8 units to the acre.
- The Orchard, Elsenham; a site of 32 units (19 open market and 12 affordable) purchased in March 2015 for £2m exclusive infrastructure costs which broke back to £1,183,009 per gross clean serviced acre. This reflects the site coverage.
- Site in Ongar; purchased in June 2016 by Taylor Wimpey for 99 units (59 open market and 40 affordable units) reflecting £1,286,582 per serviced accessed acre. The site density was 15.23 units per net acre.

- Bishop Stortford; Countryside recently purchased a large site which reflecting the 106 obligation infrastructure costs reflected a price of £1,681,444 / serviced accessed acre.
- West Stevenage; on a site for 100 units, Persimmon and Taylor Wimpey are modelling on an assumption of £1,150,000/ serviced acre.

Appendix 1 – Marks Tey Plot Developer Appraisal

Marks Tey

Development Appraisal
Cushman & Wakefield
03 January 2017

Summary Appraisal for Phase 1

Currency in £

REVENUE					
Sales Valuation	**Units**	**ft²**	**Rate ft²**	**Unit Price**	**Gross Sales**
Private units	81	77,922	310.00	298,220	24,155,820
Affordable units	34	32,708	161.00	154,882	5,265,988
Totals	**115**	**110,630**			**29,421,808**
Sales Agent Fee		1.00%	(241,558)		
Sales Legal Fee		0.50%	(147,109)		
				(388,667)	
NET REALISATION				**29,033,141**	
OUTLAY					
ACQUISITION COSTS					
Residualised Price (9.46 Acres 816,658.81 pAcre)			7,725,592		
				7,725,592	
Stamp Duty			375,780		
				375,780	
CONSTRUCTION COSTS					
Construction	**ft²**	**Rate ft²**	**Cost**		
Private units	77,922 ft²	115.00 pf²	8,961,030		
Affordable units	32,708 ft²	115.00 pf²	3,761,420		
Totals	**110,630 ft²**		**12,722,450**	**12,722,450**	
Contingency		5.00%	636,123		
				636,123	
PROFESSIONAL FEES					
Professional fees		8.00%	1,017,796		
				1,017,796	

MARKETING & LETTING		
Marketing	430,976	
		430,976
FINANCE		
Debit Rate 6.000%, Credit Rate 0.000% (Nominal)		
Land	1,010,406	
Construction	94,534	
Other	17,777	
Total Finance Cost		1,122,717
TOTAL COSTS		**24,031,433**
PROFIT		
		5,001,707

Performance Measures

Profit on Cost%	20.81%
Profit on GDV%	17.00%
Profit on NDV%	17.00%
IRR	25.08%
Profit Erosion (finance rate 6.000%)	3 yrs 2 mths

Appendix 2 – West of Braintree Plot Developer Appraisal

West of Braintree

Development Appraisal
Cushman & Wakefield
03 January 2017

Summary Appraisal for Phase 1

Currency in £

REVENUE					
Sales Valuation	**Units**	**ft²**	**Rate ft²**	**Unit Price**	**Gross Sales**
Private units	81	77,922	340.00	327,080	26,493,480
Affordable units	34	32,708	176.00	169,312	5,756,608
Totals	**115**	**110,630**			**32,250,088**
Sales Agent Fee		1.00%	(264,935)		
Sales Legal Fee		0.50%	(161,250)		
				(426,185)	
NET REALISATION				**31,823,903**	
OUTLAY					
ACQUISITION COSTS					
Residualised Price (9.46 Acres 1,027,945.93 pAcre)			9,724,368		
				9,724,368	
Stamp Duty			475,718		
				475,718	
CONSTRUCTION COSTS					
Construction	**ft²**	**Rate ft²**	**Cost**		
Private units	77,922 ft²	115.00 pf²	8,961,030		
Affordable units	32,708 ft²	115.00 pf²	3,761,420		
Totals	**110,630 ft²**		**12,722,450**	**12,722,450**	
Contingency		5.00%	636,123		
				636,123	
PROFESSIONAL FEES					
Professional fees		8.00%	1,017,796		
				1,017,796	

MARKETING & LETTING			
Marketing		430,976	
			430,976
FINANCE			
Debit Rate 6.000%, Credit Rate 0.000% (Nominal)			
Land		1,240,108	
Construction		74,232	
Other		19,616	
Total Finance Cost			1,333,956
TOTAL COSTS			**26,341,388**
PROFIT			
			5,482,515
Performance Measures			
Profit on Cost%	20.81%		
Profit on GDV%	17.00%		
Profit on NDV%	17.00%		
IRR	23.84%		
Profit Erosion (finance rate 6.000%)	3 yrs 2 mths		

Appendix 3 – East Colchester Plot Developer Appraisal

East Colchester

Development Appraisal
Cushman & Wakefield
03 January 2017

Summary Appraisal for Phase 1

Currency in £

REVENUE					
Sales Valuation	**Units**	**ft²**	**Rate ft²**	**Unit Price**	**Gross Sales**
Private units	81	77,922	280.00	269,360	21,818,160
Affordable units	34	32,708	112.00	107,744	3,663,296
Totals	**115**	**110,630**			**25,481,456**
Sales Agent Fee		1.00%	(218,182)		
Sales Legal Fee		0.50%	(127,407)		
				(345,589)	
NET REALISATION				**25,135,867**	
OUTLAY					
ACQUISITION COSTS					
Residualised Price (9.46 Acres 517,602.71 pAcre)			4,896,522		
				4,896,522	
Stamp Duty			234,326		
				234,326	
CONSTRUCTION COSTS					
Construction	**ft²**	**Rate ft²**	**Cost**		
Private units	77,922 ft²	115.00 pf²	8,961,030		
Affordable units	32,708 ft²	115.00 pf²	3,761,420		
Totals	**110,630 ft²**		**12,722,450**	**12,722,450**	
Contingency		5.00%	636,123		
				636,123	
PROFESSIONAL FEES					
Professional fees		8.00%	1,017,796		
				1,017,796	

MARKETING & LETTING			
Marketing		430,976	
			430,976
FINANCE			
Debit Rate 6.000%, Credit Rate 0.000% (Nominal)			
Land		678,997	
Construction		168,502	
Other		18,329	
Total Finance Cost			865,828
TOTAL COSTS			**20,804,020**
PROFIT			
			4,331,847
Performance Measures			
Profit on Cost%	20.82%		
Profit on GDV%	17.00%		
Profit on NDV%	17.00%		
IRR	27.13%		
Profit Erosion (finance rate 6.000%)	3 yrs 2 mths		

Appendix 4 – RICS Place Making Assessment

Placemaking and value			**Case studies – Summary data**				
	Case studies	England	Upton, Northampton	Hampton, Peterborough	Newhall, Harlow	Kings Hill, West Malling	Accordia, Cambridge
	Developer		English Partnerships	O&H Properties	Newhall Projects	Liberty Property Trust	Countryside
	Value outcome		Average values below local average values		Average values exceed local average values		
			Average values exceed local 'new-build' average values				
General							
1	Type		New town Greenfield	New town Brownfield	New town Greenfield	Out of town Brownfield	City Brownfield
2	Rail to London		1 hour	1 hour	30 minutes	50 minutes	50 minutes
Property market data			Upton	Hampton	Newhall	Kings Hill	Accordia
3	Value level ranking		5	4	3	2	1
4	Average local area value level	£240,000	£157,000	£160,000	£191,000	£278,000	£358,000
5	Average case study values		£144,000	£157,000	£233,000	£335,000	£481,000
6	Exceeds average all local values		-8%	-2%	+25%	+20%	+34%
7	Exceeds average new-build value		+25%	+5%	+19%	+51%	+56%
8	Median income	£26,845 (London £43,189)	£20,000	£22,600	£21,106	£28,000	£30,000
9	Income multiple		6.2	6.9	11.3	12	16
10	Total number units to date		1,300	5,200	500	2,000	378

Case studies – Summary data (Contd.)							
		England	Upton	Hampton	Newhall	Kings Hill	Accordia
Physical characteristics							
11	Design code		Yes	Yes	Yes	Yes	No
12	Layout/formal distinguishing features		SUDS Eco-design Flood mitigation	SUDS lakes Neighbourhood centre. Deformed grid pattern	Architect design Neighbourhood centre SUDS	Landscape design Neighbourhood centre/shopping	Architect design SUDS Grid, mews-type streets
13	Architectural approach		Conventional and contemporary	Conventional	Contemporary	Conventional	Contemporary
14	Average density		58dph	36dph	45dph	30dph av.	40dph
15	Affordable housing per cent		22%	15%	25%	c. 20%	30%
16	SUDS		Yes	Yes	Yes	Yes	Yes
17	Code for Sustainable Homes		Code 4, 6 BREEAM	Code 3, 6	Code 3–4	Code 3	Code 3/4
Community infrastructure							
18	Public transport		Inadequate	Adequate	Inadequate	Inadequate	Adequate
19	School (primary)		Adequate (on site)	Adequate	Adequate (off site)	Adequate	Adequate (off site)
20	School (secondary)		Inadequate	Adequate	Adequate (off site)	Adequate	Adequate (off site)
21	Shopping (large)		Inadequate	Adequate	Adequate (off site)	Adequate	Adequate (off site)
22	Shopping (local)		Inadequate	Adequate	Adequate	Adequate	Adequate
23	Community Centre		Adequate	Adequate	Inadequate	Adequate	Inadequate
24	Surgery		No	Yes	No	Yes	No
Community activity							
25	Community engagement		Medium	High	Medium	High	No