Haven Gateway Partnership
STRATEGIC RESIDENTIAL AND INFRASTRUCTURE STUDY

ROGER TYM & PARTNERS
Planners and Development Economists

Final Report
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EXECUTIVE SUMMARY

1. Roger Tym & Partners have been commissioned by the Haven Gateway Partnership to provide guidance on the strategic direction, scale and phasing of residential development and associated infrastructure requirements for the Haven Gateway sub-region to 2021.

2. This study is underpinned by current and emerging national policy guidance, in particular PPG3 and the need to adopt a sequential approach to identifying housing potential.

3. Policy HG3 of the Draft East of England Plan states that Local Development Documents (LDDs) will provide for 50,840 net additional dwellings up to 2021 in the Haven Gateway sub-region.

4. The total potential already identified is nearly 47,400 dwellings. Babergh and Mid Suffolk have already identified or delivered sufficient housing capacity to fulfil their requirements to 2021. In total there is a shortfall to be found of nearly 3,500 dwellings.

5. The potential to increase density on existing or identified sites in Ipswich and Colchester would not be sufficient to alleviate the identified shortfall but would provide nearly 800 dwellings.

6. Locations with potential were identified and subjected to a sustainability appraisal. 12 locations were assessed with 11 considered to pass the appraisal process. The broad location of these areas was in the Ipswich and Colcehster urban areas, in Clacton and in Felixstowe/Trimleys.

7. There is limited potential on existing identified employment sites that may have the greatest potential to be released for housing. However, it could still provide in the region of 1,750 dwellings. This would depend on whether the sites were released from their existing employment allocation.

8. In total, 12 strategic directions of growth have been identified. These various sources create the potential for a theoretical 14,500 additional dwellings to alleviate the shortfall of 3,500. As such, there is a theoretical surplus of 11,000 dwellings. Importantly, there is a surplus in all of the districts.

9. These all serve as options and each of them consist of area options. Not all of the strategic directions or the total capacity of each has to be taken up. It is the role of the Local Development Framework (LDF) process to assess each of the options and take the chosen ones forward.

10. Most of the strategic direction options are focused around the main centres of Ipswich and Colchester. Those on the outskirts of these centres are close to the strategic road network.

11. The option at Felixstowe/Trimleys reflects its status as major employment centre linked to the port. Furthermore, this is underpinned by the potential future expansion of the port, a decision on which is awaited at this time.

12. The total cost of the infrastructure requirement we have identified for the Haven Gateway is £2.5 billion. Of this, transport totals £2.0 billion, approximately 80%. The table below summarises the costs and phasing:

Summary Infrastructure Costs by Phase

Category	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021
Transport	**2,043.49**	298.38	661.61	1,083.50
Education	**105.60**	34.08	55.73	15.80
Health	**152.50**	136.00	12.50	4.00
Police	**18.00**	6.00	6.00	6.00
Fire Service	**2.60**	0.00	1.30	1.30
Community Centres	**56.00**	18.00	19.00	19.00
Sport/Liesure Centres	**28.00**	9.00	9.00	10.00
Outdoor Sports	**24.00**	8.00	8.00	8.00
Playspace	**21.00**	7.00	7.00	7.00
Libraries	**6.00**	2.00	2.00	2.00
Flood Defences	**45.00**	45.00	0.00	0.00
Total	2,502.19	563.46	782.14	1,156.60

Source: RTP

13. The main transport issue is the linked one of growth in Ipswich Central, of East-West movement in the town as a whole and congestion on the adjoining sections of the A14. Subject to the evaluation being carried through development of the ITS, it appears that early action on this issue will be required to underpin continuing development in Ipswich Central, and eventually elsewhere in Ipswich.

14. In addition, providing for east-west movement through Colchester will grow in importance as the town grows.

15. Flood defence is also an issue affecting future development in Ipswich Central.

16. The main overall issue is that of funding. Developer contributions have been identified as a source of funding towards the provision of infrastructure by many of the responsible agencies, implying that there is a need for coordination to ensure that Sec 106 funding is sought for those services and facilities for which for which it is most difficult to find alternative sources of funding.

17. The level of public subsidy available will not make a substantial contribution towards meeting the need for affordable housing. The annual level of S106 funding required to fund the affordable housing to meet the RHS aspiration of 40% would be £48.7 million.

18. These costs will substantially reduce land values – by between 35 to 40% - which will have a critical effect on the ability to use Section 106 revenues to fund other forms of necessary infrastructure or to procure the development of brownfield land.

1 INTRODUCTION

Study Brief

1.1 Roger Tym & Partners have been commissioned by the Haven Gateway Partnership to provide guidance on the strategic direction, scale and phasing of residential development and associated infrastructure requirements for the Haven Gateway sub-region to 2021. This forms one of three related studies to inform the development of a Strategic Framework; the other studies relate to employment and regeneration.

1.2 The proposed Strategic Framework has three main objectives:

- To provide strategic direction through a criteria-based approach on the strategic direction, scale and phasing of residential development to 2021.
- To establish the scale of infrastructure required to support growth and development.
- To provide a framework to implement plan-monitor-manage (P-M-M) to ensure development and growth is balanced and sustainable.

National Guidance

PPG3

1.3 This study is underpinned by current and emerging national policy guidance. The current planning policy guidance in respect of housing is provided in PPG3. Paragraph 31 states the following:

> *"In deciding which sites to allocate for housing in local plans and UDPs, local planning authorities should assess their potential and suitability for development against each of the following criteria:*
>
> - *the **availability of previously-developed sites** and empty or under-used buildings and their suitability for housing use;*
> - *the **location and accessibility** of potential development sites to jobs, shops and services by modes other than the car, and the potential for improving such accessibility;*
> - *the **capacity of existing and potential infrastructure**, including public transport, water and sewerage, other utilities and social infrastructure (such as schools and hospitals) to absorb further development and the cost of adding further infrastructure;*
> - *the **ability to build communities** to support new physical and social infrastructure and to provide sufficient demand to sustain appropriate local services and facilities; and*
> - ***the physical and environmental constraints on development of land**, including, for example, the level of contamination, stability and flood risk, taking into account that such risk may increase as a result of climate change."*

1.4 These criteria must form the basis for identifying the strategic directions of residential growth. Firstly, the identification of potential must adopt the sequential approach, i.e. previously developed land (PDL) in urban areas is identified first, followed by other PDL, then followed by greenfield areas. Then, infrastructure requirements for each location must be assessed to derive a set of strategic directions.

1.5 It is this two-stage approach of identifying areas with potential and then assessing their requirements for delivery that we have adopted.

Housing Policy Consultation

1.6 In July 2005, the Office of the Deputy Prime Minister published a consultation paper entitled 'Planning for Housing Provision.' This has been produced partly because of the need to update the national housing policy guidance provided in PPG3 and partly in response to the findings of the Barker Review of Housing Supply. It sets out the Government's objectives for delivering a better supply of housing and proposes a new policy approach to making the planning system more responsive to the housing market.

1.7 One of the key changes from existing policy is in identifying land. At present, local authorities are currently expected to plan for 10 years of housing supply, 5 years of which is allocated, with an expectation that some or all of this may not be available for development. Therefore, windfalls are expected to ensure delivery of housing. Under the new system, the plan horizon would be extended to 15 years. The first 5 years would be allocated and developable with less reliance on windfall in areas where it is possible to allocate land.

1.8 This is in response to the fact that many plans have relied on over-optimistic allowances for windfall sites which have not materialised. The emphasis of the proposed changes is on identifying available sites in the short term in order to have a greater chance of maintaining delivery. Windfalls in the short term should be guided by a local authority's track record on delivering housing on windfall sites.

1.9 The paper provides more context for the consideration of windfall development. It states in paragraph 47 that,

> *"Different local authorities should deal with windfall to meet the needs of their particular housing market, for example, local authorities in housing markets identified for growth should consider windfall applications favourably, so long as they are sustainable."*

1.10 With Haven Gateway's status as a sub-region supporting substantial growth in the East of England, this points to a favourable view needed in respect of windfalls. Furthermore, the Paper states that:

> *"…windfall sites can offer opportunities for good, sustainable development in all areas however, so the approach to dealing with windfall that arises should not prevent local authorities and developers taking these opportunities."*

1.11 The study will therefore provide a clear understanding of the potential for windfall development to contribute towards the total housing requirement.

Draft East of England Plan

1.12 Policy HG3 of the Draft East of England Plan states that Local Development Documents (LDDs) will provide for 50,840 net additional dwellings up to 2021, distributed as follows:

Local Authority Area	Net Additional Dwellings
Babergh	2,000 (incl. 600 on edge of Ipswich)
Colchester	17,100
Ipswich	15,400
Mid Suffolk	790 (on edge of Ipswich)
Suffolk Coastal	7,050 (incl. 3,320 on edge of Ipswich)
Tendring	8,500

Source: Draft East of England Plan

N.B. Suffolk Coastal District Council has objected to the wording of the policy in the Draft East of England Plan and specifically the inclusion of a particular number of dwellings on the edge of Ipswich.

1.13 The supporting text states that housing delivery will be phased to ensure that brownfield sites within the built-up area and strategic sites identified by the local authorities are given priority and that the sequential approach is applied across the policy area.

1.14 Transport policy – as provided by Policy HG5 – identifies the following transport schemes for which provision will be made:

- Road:
  - Improvements to the A12 (Colchester to M25)
  - A120 improvements (Braintree to Marks Tey)
  - Improvements to the A120 (Hare Green to Harwich)
  - Improvements to the A133 corridor
  - Improvements to the access to Ipswich Waterfront and Port
  - A14 corridor improvements.
- Rail:
  - Felixstowe to Nuneaton rail upgrade (phases 1 and 2) and Ipswich north freight chord and tunnel gauge enhancement
  - Colchester to Shenfield rail improvements and an assessment of the potential for new railway stations and parkways at, amongst other locations, Marks Tey.
- Public Transport:
  - A quality bus corridor between Stansted and Colchester
  - A foot ferry between Harwich, Shotley and Felixstowe to improve synergy between the ports.

1.15 In addition to the schemes listed in the policy, the Regional Transport Strategy gives priority to capacity enhancements on the Clacton branch line.

Other Relevant Issues

1.16 There are several other relevant factors that need to be taken into consideration. In particular, the decisions on the proposals for major port development/expansion at Bathside Bay and Felixstowe are critical. If either or both granted permission – and decisions are expected in late 2005 – then this will have major infrastructure implications, particularly in respect of the road network. In reality, it is questionable as to whether both ports will be expanded, particularly as permission has been given to expand the Shellhaven port in the Thames Gateway.

1.17 These port proposals will also have considerable employment implications and indeed, employment generally is an important factor. The Employment Land Study for Haven Gateway – undertaken by DTZ Pieda - provides recommendations for existing and new employment allocations. As considered in Central Government guidance, if employment land is recommended for de-allocation, then one of the primary alternatives that need to be considered for its use is housing. These locations should be well situated and will be on previously developed land. As such, they could potentially be more sustainable than some of the directions for growth already identified. The results of the Employment Land Study will be taken on board.

1.18 To a degree, market factors need to be taken into account. A simple numerical assessment may identify the required numbers of dwellings to achieve the targets but a degree of realism needs to be attached to these. In particular, the ability of the highest density locations such as Ipswich to continue developing and selling one- and two-bed flats is an issue. Whilst this study will not seek advice from housebuilders, consideration will be given to it.

1.19 Also, affordability is an issue that needs to be considered jointly with the assessment of capacity and market factors. In certain areas, the ability to draw down Housing Corporation funding is limited. However, if they do not have sufficient money to deliver the affordable housing requirements, then they will be unable to deliver the Draft East of England Plan targets for housing or jobs.

Report Structure

1.20 The report will be structured as follows:

- Chapter 2 will outline the housing capacity already identified to 2021, as assessed by each of the individual planning authorities.
- Chapter 3 will then consider ways of filling the remaining capacity needs. This will be from increasing existing densities, identifying potential new areas for development and assessing the potential from existing employment areas that could be re-allocated. This will therefore summarise all the options for the strategic directions of growth.
- Chapter 4 will assess the infrastructure issues and seek to attribute costs to each of the requirements under each direction of growth option.
- Chapter 5 will assess the need for affordable housing and potential issues in respect of funding.
- Chapter 6 will present a summary and provide key conclusions.

2 IDENTIFIED HOUSING CAPACITY TO 2021

Introduction

2.1 Firstly, it is necessary to assess the extent of the identified housing capacity from 2001 to 2021 for the Haven Gateway sub-region. This requires compiling the data at district level, recognising that the sub-regional boundary does not adhere directly to district boundaries in the case of Babergh, Mid Suffolk and Suffolk Coastal. However, in each case, a reasonable breakdown has been derived that reflects the position in that part-district.

2.2 Each authority has a different approach to identifying housing capacity. However, it is possible to categorise all identified capacity under the following headings:

a) Dwellings developed since 2001.

b) Local Plan allocations on previously developed land (PDL), including dwellings with planning permission.

c) Remaining PDL capacity identified through urban capacity studies.

d) Windfall allowance.

e) Local Plan allocations on greenfield sites, including dwellings with planning permission.

f) Other greenfield potential, e.g. rural villages.

g) Potential to increase densities on existing allocated sites.

Agreed Residential Capacity

2.3 Information was provided was provided by and discussed with each local authority and we shall now address each of these in turn.

Colchester

2.4 Table 2.1 shows the identified urban capacity in Colchester borough between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Colchester borough has identified potential to provide between over 16,000 dwellings. Based on the requirement to develop 17,100 dwellings, this results in a shortfall of nearly 1,100 dwellings.

Table 2.1 Identified Housing Capacity in Colchester

Source	Potential Capacity, 2001-2021
Already developed	3,121
Permissions and allocations on PDL	8,778
Remaining identified PDL	1,550
Windfalls	1,808
Other sources (non UCS sites)	0
Already identified urban intensification	750
Greenfield allocations and potential	Incl. in PDL fig.
Total Identified Potential, 2001-21	**16,007**
RSS Allocation (Policy HG3)	17,100
Current Shortfall/(Surplus)	**1,093**

2.5 The key points to note are as follows:

- The figure for permissions includes a 750-dwelling windfall currently under construction (the Flaktwoods site).
- The windfall figure is based on past trends, with 226 dwellings per annum being delivered over the past 5 years. However, this rate is unlikely to continue as the high levels of development reduce the amount of available windfall areas. Therefore, a future rate at 50% of the recent trend is taken to be reasonable for the remainder of the Plan period to 2021.
- The figure for 'already identified urban intensification' reflects the additional housing that is likely to come forward on the existing Garrison development. Colchester Borough Council believes this will be between 500 and 1,000 dwellings, therefore a middle figure of 750 dwellings has been used.
- Whilst a single figure has been given, care needs to be taken in interpreting this as the definitive shortfall that needs to be found. The data available from Colchester Borough Council made no allowance for urban capacity beyond that assumed in the Local Plan up to 2011. As such, in theory, the additional urban capacity for the period 2011-2021 could be nil. In practice this will not happen and nor will a figure for potential urban capacity that will completely fulfil the requirement up to 2021. Therefore, whilst producing the analysis based on the figure provided, it is still sensible to consider the strategic directions for growth based on the theoretical 'worst case' scenario, i.e. needing an additional 1,100 dwellings to be found.
- The urban capacity study (UCS) was undertaken before the current guidance for them was produced. As such, it is recommended that more work is done on urban capacity with a view to updating this UCS.

Tendring

2.6 Table 2.2 shows the identified urban capacity in Tendring district between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Tendring district has identified potential to provide nearly 8,100 dwellings. Based on the requirement to develop 8,500 dwellings, this results in a shortfall of over 400 dwellings.

Table 2.2 Identified Housing Capacity in Tendring

Source	Potential Capacity, 2001-2021
Already developed	1,122
Permissions and allocations on PDL	1,937
Remaining identified PDL	3,372
Windfalls	1,070
Other sources (non UCS sites)	0
Already identified urban intensification	0
Greenfield allocations and potential	574
Total Identified Potential, 2001-21	**8,075**
RSS Allocation (Policy HG3)	8,500
Current Shortfall/(Surplus)	**(425)**

2.7 The key points to note are as follows:

- The data in the table relates to the position as at 1st April 2004 and proposed allocations in the Redeposit Draft Replacement Local Plan.
- All of the remaining identified PDL relates to the remainder of the urban capacity identified by Halcrow in their 2002 study, (i.e capacity not already built, with

planning permission or allocated), except additionally 640 dwellings in the Harwich Masterplan proposals for Harwich Old Town and 232 dwellings capacity on identified small PDL sites in villages. The inclusion of all remaining capacity on large UCS sites (1,265 dwellings) within the figure is judged to represent a high estimate which could only be further refined through detailed LDF work.

- The windfalls figure is an extrapolation of non UCS, large PDL sites coming forward (820 dwellings) and estimate of delivery on small unidentified pdl sites in villages (250 dwellings).
- The greenfield allocations and potential comprises Redeposit Plan allocations (392) plus planning permissions and rural exception sites estimate.
- The combination of small sites capacity from all sources (1,753) within the figures is considered to represent a reasonable total estimate of delivery on small sites (capacity < 12 dwellings) 2004-2021, overall somewhat less than recent past trends in terms of implied average annual completions.

Babergh

2.8 Table 2.3 shows the identified urban capacity in the part of Babergh district that is in the Haven Gateway between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Babergh district has identified potential to provide nearly 2,200 dwellings. Based on the requirement to develop 2,000 dwellings, this results in a surplus of nearly 200 dwellings.

Table 2.3 Identified Housing Capacity in Babergh part of Haven Gateway

Source	Potential Capacity, 2001-2021
Already developed	648
Permissions and allocations on PDL	875
Remaining identified PDL	50
Windfalls	600
Other sources (non UCS sites)	0
Already identified urban intensification	0
Greenfield allocations and potential	Incl. in PDL fig.
Total Identified Potential, 2001-21	**2,173**
RSS Allocation (Policy HG3)	2,000
Current Shortfall/(Surplus)	**(173)**

2.9 The key points to note are as follows:

- Nearly 500 dwellings in the permissions and allocations on PDL are 'deemed' commitments, i.e. they have planning permission but are currently going through the Local Plan Inquiry process.
- The figure of windfalls is based on the 85 dwellings per annum (dpa) figure for the whole district. Given that approximately half of the district is within the Haven Gateway area, and this includes one of the two major towns in Hadleigh as well as areas on the edge of Ipswich, a figure of 40dpa is considered to be reasonable for the 15 year period to 2021.

2.10 The reliance on windfalls is quite high given the overall total to be found – it represents more than 25% of the total need. However, given the fact that a surplus of dwellings has been identified, there is some scope to reduce reliance on windfalls.

Ipswich

2.11 Table 2.4 shows the identified urban capacity in Ipswich district between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Ipswich district has identified potential to provide over 14,250 dwellings. Based on the requirement to develop 15,400 dwellings, this results in a shortfall of nearly 1,150 dwellings.

Table 2.4 Identified Housing Capacity in Ipswich

Source	Potential Capacity, 2001-2021
Already developed	2,101
Permissions and allocations on PDL	6,623
Remaining identified PDL	2,950
Windfalls	880
Other sources (non UCS sites)	0
Already identified urban intensification	200
Greenfield allocations and potential	1,500
Total Identified Potential, 2001-21	**14,254**
RSS Allocation (Policy HG3)	15,400
Current Shortfall/(Surplus)	**1,146**

2.12 The key points to note are as follows:

- The figure for remaining identified PDL covers all sites suggested in the Area Action Plan that don't already have planning and that aren't already allocated in either the adopted Local Plan or the Deposit Draft Local Plan.
- The additional capacity through urban intensification that has already been identified relates to additional capacity considered as possible to come forward from the remaining allocations in the First Deposit Draft Local Plan. This is based on analysis of the average densities achieved on the permitted and constructed sites allocated in the Plan.
- The greenfield allocations and potential relate to the draft allocations that make up the Northern Development Area. It has been considered in the past that these areas do have the potential to support an additional number of dwellings.

Mid Suffolk

2.13 Table 2.5 shows the identified urban capacity in the part of Mid Suffolk district that is in the Haven Gateway between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Mid Suffolk district has identified potential to provide 1,000 dwellings. Based on the requirement to develop 790 dwellings, this results in a surplus of over 200 dwellings.

Table 2.5 Identified Housing Capacity in Mid Suffolk part of Haven Gateway

Source	Potential Capacity, 2001-2021
Already developed	52
Permissions and allocations on PDL	105
Remaining identified PDL	830
Windfalls	0
Other sources (non UCS sites)	0
Already identified urban intensification	0
Greenfield allocations and potential	11
Total Identified Potential, 2001-21	**998**
RSS Allocation (Policy HG3)	790
Current Shortfall/(Surplus)	**(208)**

2.14 The key points to note are as follows:

- Over 500 dwellings of the remaining identified PDL relates to a proposed residential development attached to the proposed Snoasis leisure development. The proposed number of dwellings is currently 350 but this will increase to over 500 if Snoasis is permitted.

Suffolk Coastal

2.15 Table 2.6 shows the identified urban capacity in the part of Suffolk Coastal district that is in the Haven Gateway between 2001 and 2021. To summarise, this shows that, between 2001 and 2021, Suffolk Coastal district has identified potential to provide nearly 5,900 dwellings. Based on the requirement to develop 7,050 dwellings, this results in a shortfall of nearly 1,200 dwellings.

Table 2.6 Identified Housing Capacity in Suffolk Coastal part of Haven Gateway

Source	Potential Capacity, 2001-2021
Already developed	927
Permissions and allocations on PDL	1,057
Remaining identified PDL	2,264
Windfalls	1,626
Other sources (non UCS sites)	0
Already identified urban intensification	0
Greenfield allocations and potential	Incl. in PDL fig.
Total Identified Potential, 2001-21	**5,874**
RSS Allocation (Policy HG3)	7,050
Current Shortfall/(Surplus)	**1,176**

2.16 The key points to note are as follows:

- The figure for windfalls comes from the UCS for the district. This identifies a windfall rate for whole district of 170dpa. It is assuming that 75% of these are in the HG area (75% equating approximately to the urban capacity from these areas in Haven Gateway as a proportion of the total district). The 25% discount rate in the

UCS is then applied to give a figure of 96dpa. This is then applied to the period '04-'21.

2.17 This represents a significant reliance on windfalls – over 25% of the total requirement. However, with the presence in the Suffolk Coastal district part of the Haven Gateway of the Ipswich urban fringe as well as the substantial employment and commercial centre of Felixstowe, the towns of Woodbridge, Aldeburgh and Leiston, and key villages such as Trimley St Mary, Trimley St Martin, and Martlesham, there is significant opportunity for windfalls to come forward. It is understood from the district council that it is looking to refine the methodology used to estimate the future occurrence of windfall and as a result the figure may change. Nevertheless, allowance must be made in identifying potential areas for the possibility that a lower rate could be realised.

Summary of Total Capacity

2.18 Table 2.7 shows the summary of the district or part-district totals of housing capacity. This shows that, between 2001 and 2021, the Haven Gateway has identified potential to provide nearly 47,400 dwellings. Based on the requirement to develop 50,840 dwellings, this results in a shortfall of over 3,450 dwellings.

Table 2.7 Total Identified Housing Capacity in the Haven Gateway

Source	Potential Capacity, 2001-2021
Already developed	7,971
Permissions and allocations on PDL	19,375
Remaining identified PDL	11,016
Windfalls	5,984
Other sources (non UCS sites)	0
Already identified urban intensification	950
Greenfield allocations and potential	2,085
Total Identified Potential, 2001-21	**47,381**
RSS Allocation (Policy HG3)	50,840
Current Shortfall/(Surplus)	**3,459**

2.19 In other words, there is a need to identify areas to accommodate 3,450 additional dwellings that have not already been identified.

2.20 Windfalls form just over 12% of the total which overall appears reasonable. However, as shown above, there are significant variations between districts and it is on a district-by-district basis that each will need to be assessed.

Existing and Pipeline Locations for Development

2.21 The assessment in this chapter outlined the existing identified dwelling potential. This includes sites which are being developed; sites which have been granted planning permission but have not yet been built; and sites which have been allocated for housing development.

2.22 For the purposes of the infrastructure assessment, it is important to understand the broad locations of these development areas and which districts they are in. They are:

- Ipswich Central (in Ipswich borough);
- Ipswich North (in Ipswich borough);
- Ipswich East (in Suffolk Coastal district);
- A14 South; south east of Ipswich (in Ipswich borough and Suffolk Coastal district);

- Colchester North (in Colchester borough and Tendring district);
- Colchester South (Colchester borough);
- A12 Corridor South; east of Colchester (Colchester borough);
- A14 Corridor North; north west of Ipswich (Babergh and Mid Suffolk districts);
- Clacton (Tendring district);
- Shotley Peninsula (Babergh district);
- Felixstowe/Trimleys (Suffolk Coastal district).

2.23 These are shown in Figure 3.2 in the next chapter.

3 ADDITIONAL SOURCES OF HOUSING CAPACITY TO 2021

Introduction

3.1 As shown in Table 2.7, there is a basic requirement to find approximately 3,450 additional dwellings in order to deliver the required target for the Haven Gateway between 2001 and 2021. The district breakdown is summarised in Table 3.1.

Table 3.1 Additional Dwelling Requirement by District

District	Basic Dwelling Requirement
Colchester	1,093
Tendring	425
Babergh	-173
Ipswich	1,146
Mid Suffolk	-208
Suffolk Coastal	1,176
Haven Gateway	**3,459**

3.2 What this shows is that two districts – Babergh and Mid Suffolk – have already identified sufficient dwellings to fulfil their allocation. There are two important points to note in respect of these districts:

- Firstly, the identified total includes a consideration of urban capacity which may not be delivered. As such, it is prudent to still identify any potential locations for growth.
- Secondly, the existing identified areas for development will still create infrastructure requirements, so still need to be considered as part of the study.

3.3 We now move on to consider the three strands of possible additional capacity, namely:

- potential to increase densities;
- capacity in locations with potential; and
- potential on existing employment areas.

Potential to Increase Existing Densities

3.4 There is potential to increase capacity on several of the existing/pipeline and potential development areas. These are now discussed in brief.

Existing and Pipeline Areas

3.5 The existing areas that make up part of the Ipswich North direction are currently identified in the First Deposit Draft Plan as capable of providing 1,500 dwellings. However, it is understood that that it may be possible for these areas to have their densities increased in order to take an additional number of dwellings, probably no more than 500. This would be done only in order to prevent further urban extensions from being needed and would obviously only be deliverable if the area was developed.

Potential Areas

3.6 There are several potential development areas where densities are at or around the 30 dph figure. This does not automatically mean that there is potential for their densities to be increased, as this depends on a wide range of factors. Indeed, given the fact that many of these are no more than identified strategic areas with potential, then this

assessment can given no more than an idea of the initial potential to increase densities. As detailed masterplans are produced, other factors could come into play and affect the densities that can be achieved.

3.7 The areas with greatest potential to increase from existing low densities are those that are close to the centre of significant urban centres, principally Ipswich and Colchester. In particular, urban infill sites have greater potential than urban extensions, as they are often surrounded by higher density development already and would therefore fit well into the existing urban built form.

3.8 Therefore, of the identified areas that have existing low densities, those with potential to increase density are:

- Parts of Colchester North – currently 365 dwellings at 30dph;
- Parts of Colchester South – currently 1,390 dwellings at 30dph;

3.9 It is not possible to make a clear assessment of exactly what density is achievable, but if the densities were uniformly increased to 40dph, then this would deliver an additional 288 dwellings in these areas.

Capacity in Locations with Potential

3.10 The bulk of the possible capacity that needs to be identified to fulfill the Draft East of England requirement comes from the identification of 'locations with potential.' The way these areas were identified and their assessment is now discussed.

Methodology for Assessing Potential Locations

3.11 The nature of the study is that a 'bottom-up' approach has been used. This means that the strategic directions for growth have been developed through the compilation of areas that could be developed. Because of the time constraints for the study, we were unable to undertake an on-the-ground search for potential areas for development. As such, these areas were identified through discussions with planning officers at each local authority.

3.12 It is important to stress that, in most cases, these are no more than general areas which, under a sequential approach, could be seen as having some potential to support growth. It is certainly not the role of this study to identify boundaries to these areas – this assessment is of the strategic potential of areas to support residential development across a sub-regional area. It will be the role of the Local Development Framework (LDF) process to bring forward a portfolio of sites in these broad areas and deliver them through the plan system as appropriate.

3.13 A sustainability assessment was then undertaken on the list of areas. This is described in the next section.

Sustainability Assessment

3.14 The assessment was divided into two parts; a strategic and a local sustainability assessment. The strategic assessment sought to identify and eliminate those locations that have little or no potential to support large-scale strategic development. From this, the local assessment was able to look at locations in more detail and assess whether they are able to fulfil the wide range of necessary requirements that need to be considered when looking at sustainable development.

3.15 The appraisals seek to be as explicit and objective as possible within the context of a strategic assessment undertaken over a short time period, but recognise that the evaluation process does involve the exercising of judgement.

Strategic Criteria

3.16 Four strategic criteria were used to assess each of the locations. They are as follows:

- Sequential Approach - whether a site is on brownfield or greenfield land. Sites with a stronger policy framework supporting development score strongest.
- Regional policy context - whether locations are within areas that have been designated for potential growth and development at a regional level
- Growth pattern – uses a sequential approach to site selection, whereby it is preferable for locations to be adjacent to larger settlements than smaller ones.
- Efficient movement - whether efficiency of movement is maximised by the proximity of residential areas to existing or allocated employment areas. This also considers the proximity to a railway station

3.17 Full detail of each of the criteria and the scoring is shown in Appendix A.

Local Criteria

3.18 There were a further six criteria making up the second stage of the assessment:

- Relationship to adjacent development – the setting in which a development would sit, in terms of coalescence and contiguity/compatibility with existing uses.
- Efficient use of land – larger sites will be able to develop their own local centres, therefore will operate more efficiently and achieve higher densities of housing close to the centre.
- Potential adverse impact on key environmental designations – the impact of a development on the main national, county and local designations.
- Constraints on development – the possible negative environmental effects that residents and neighbours of a development could experience.
- Accessibility to services/facilities – the ability to access major strategic facilities, such as hospitals, further education, major retail and recreation, etc).
- Accessibility to employment sites – whether development will be located where the jobs are located.

3.19 Full detail of each of the criteria and the scoring is shown in Appendix A.

Results of Assessment

Strategic Assessment

3.20 In total, we identified 12 locations for inclusion in the strategic assessment. Of these, one scored sufficiently poorly against the four strategic criteria to be eliminated as potential options. For a location to be eliminated, it had to score poorly (a 'C' score on the individual criterion) on at least three of the four criteria.

3.21 Consequently we took forward 11 locations with sufficient potential for assessment against the local sustainability criteria.

Local Assessment

3.22 Of the 11 locations to be assessed under the six local sustainability criteria, none scored sufficiently poorly to be eliminated as potential options. For a location to be eliminated, it had to score poorly (a 'C' score on the individual criterion) on at least three of the 10 criteria making up both the strategic and local elements.

3.23 As a result, 11 locations are considered to have potential, under a strategic-level assessment, to accommodate residential development. These are broadly located in the following locations:

- the Ipswich urban area;
- the Colchester urban area;
- Clacton; and

- Felixstowe/Trimleys.

3.24 These broad directions are shown in Figure 3.2. It is important to note that this is the situation in advance of assessing the infrastructure implications of these areas. This is undertaken in the next chapter.

Potential on Existing Employment Areas

3.25 The existing national planning policy guidance – provided by PPG3 – was updated in January 2005[1]. This supports the redevelopment of existing land allocated for industrial or commercial use in saved policies and development plan documents or redundant land or buildings in industrial or commercial use, where it is no longer needed for such use and has little prospect of being taken up during the plan period.

3.26 It is therefore prudent to consider whether any employment areas can be brought forward for residential use. Given the large amounts of greenfield land identified in the Areas with Potential, this would be preferable as it would permit brownfield land to be developed first.

3.27 The associated Employment Land Study of the Haven Gateway Area[2] has found the Haven Gateway to have significant levels of employment land – over 1,100ha. The study has assessed all the main employment areas in and rated these based on their quality and suitability for redevelopment for employment uses. Those sites rated 'poor' were considered to have the greatest potential for release to other uses, so have been included in this housing assessment.

3.28 In total, 192ha of employment land was considered to be of poor quality. However, all land within this total that is considered to be port land was excluded from assessment. The reason for this is the fact that there is long standing strategic rationale for retaining significant surpluses of employment land at the ports of Harwich and Felixstowe so as to cater for long term and/or unforeseen future requirements. As a result, port estates and any employment land directly serving the port have been discounted from the Employment Land Study as a first step in identifying any sites for release. The same approach has therefore been taken in this study and these sites eliminated.

3.29 The suitability of these employment areas for residential use was then assessed under the same sustainability criteria used above. In total, 11 employment areas were assessed. Of these, two scored sufficiently poorly to be eliminated as potential options. For the remaining nine locations, the capacity of each was assessed on a case-by-case basis, using likely densities for a site in that location and using standard allowances for infrastructure, i.e. roads, schools, community facilities, etc. For the purposes of strategic assessment, a threshold of 100 dwellings was adopted.

3.30 In total, existing employment areas in the Haven Gateway have potential to provide nearly 1,750 dwellings. These are distributed as follows:

- Colchester – 200 dwellings;
- Tendring – 300 dwellings;
- Ipswich – 300 dwellings;
- Babergh – 800 dwellings;
- Suffolk Coastal – 150 dwellings (but only if an identified area with potential is developed first);
- Mid-Suffolk – 0 dwellings.

[1] Update to PPG3: Housing: *Supporting the Delivery of New Housing*, January 2005, ODPM.
[2] DTZ Pieda (2005) *Employment Land Study*, Haven Gateway Partnership.

3.31 It is important to note that we are not recommending de-allocation of employment land in these areas. This is merely one option that could be used in order to fulfil the housing requirement. However, if the land is needed to be retained for employment, then this potential source would automatically be lost.

3.32 Indeed, these areas would need to be assessed in more detail by each local authority and any de-allocation as an employment use taken through the LDF process. It must be noted however, that just because a site is classified as 'poor' and it has been assessed as having potential for housing, does not mean that it will be released. Local authorities are still advised to keep a reasonable stock of existing employment land and these may be the sites that are retained to accommodate potential new businesses. The Employment Land Study recommended an approach to the release of employment sites as shown in Table 3.2.

3.33 This shows that in the two main urban centres, Colchester and Ipswich, minimal release is recommended. Therefore, whilst both districts have an additional housing requirement to be identified, it is less likely that the identified areas with potential will come forward. By contrast, three of the districts that have the potential for managed release - Babergh, Mid Suffolk and Tendring – do not have a housing requirement to be found. As such, there would appear to be little need to release employment land in these districts.

Table 3.2 Recommended Approach to Release of Employment Sites

District	Recommended status	Explanation
Port estates and sites directly serving port	No release	Need to safeguard port hinterland for strategic long-term requirements.
Ipswich and Colchester	Minimum release	Vacant sites should only be released where: • it can be demonstrated that employment use is not feasible/ sustainable and/or; • there is a justifiable case for release from a strategic planning point of view and the site can be replaced elsewhere.
Babergh, Mid Suffolk and Suffolk Coastal and Tendring outside port areas	Managed release	Proactive identification of 'surplus' sites for release where there are strong pressures for other uses.

Source: DTZ Pieda (2005) Employment Land Study,

3.34 Only in Suffolk Coastal does there appear to be potential for release. The district has an outstanding requirement to be found and has areas recommended for managed release. If these areas were found to contain the sites we have assessed as having potential for housing, then they could be brought forward.

Summary of Options for Strategic Directions of Growth

3.35 At this stage, it is worth summarising the potential capacity available from the sources considered in this and the previous chapter, once the existing capacity has been taken into account. This is shown in Table 3.3.

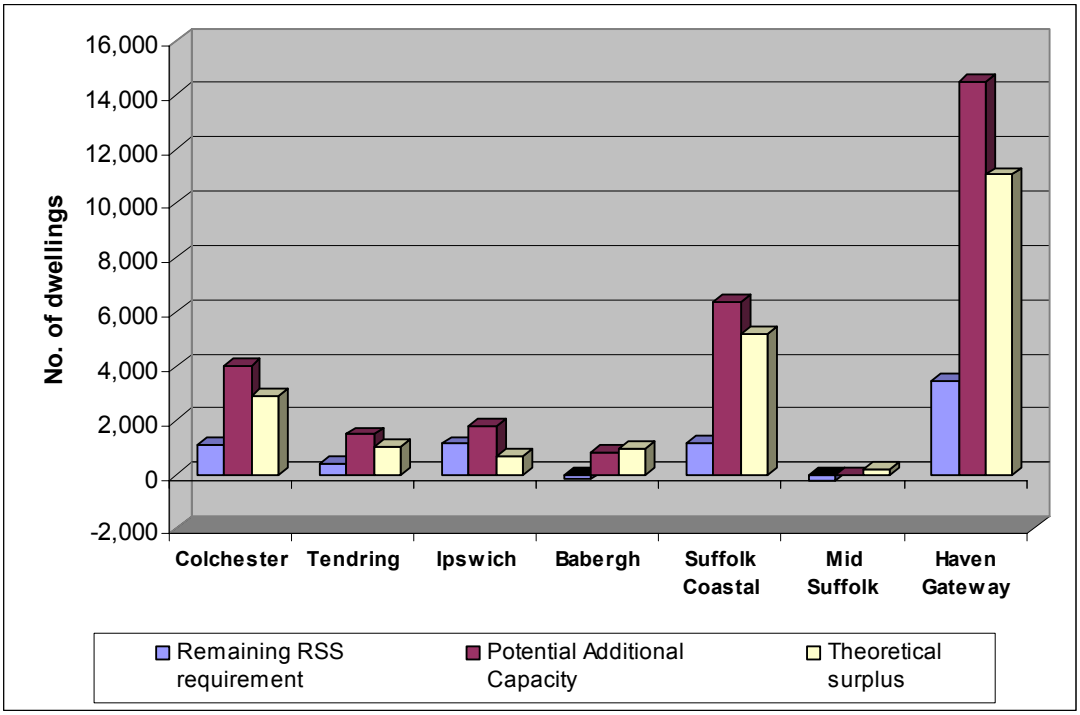
Table 3.3 Summary of Potential Capacity to Fill Remaining RSS Requirement

District	Potential to increase density on existing sites	Potential from Locations With Potential	Potential from Existing Employment Sites	Total Potential Additional Capacity	Remaining RSS requirement	Surplus
Colchester	1,288	2,537	182	4,007	1,093	2,914
Tendring	0	1,200	286	1,486	425	1,061
Ipswich	500	1,000	316	1,816	1,146	670
Babergh	0	0	809	809	-173	982
Suffolk Coastal	0	6,250	143	6,393	1,176	5,217
Mid Suffolk	0	0	0	0	-208	208
Haven Gateway	**1,788**	**10,987**	**1,736**	**14,511**	**3,459**	**11,052**

3.36 Once increased density, the potential on existing employment sites and the potential from 'locations with potential' are taken into account, a theoretical 14,500 additional dwellings could be developed. By contrast, the remaining RSS dwelling requirement – once the existing capacity assessed in chapter 2 has been taken into account - is only 3,450. This therefore means a minimum theoretical surplus of over 11,000 dwellings.

3.37 Importantly, as shown in Figure 3.1, there is a theoretical surplus in all of the districts/part districts.

Figure 3.1 Theoretical Dwelling Requirement Based on Identified Strategic Directions of Growth



3.38 In order to inform the infrastructure requirements, it is necessary to consider the 'total' broad directions in which the identified housing capacity will grow, i.e. including existing and pipeline development areas and areas with potential. Figure 3.2 shows

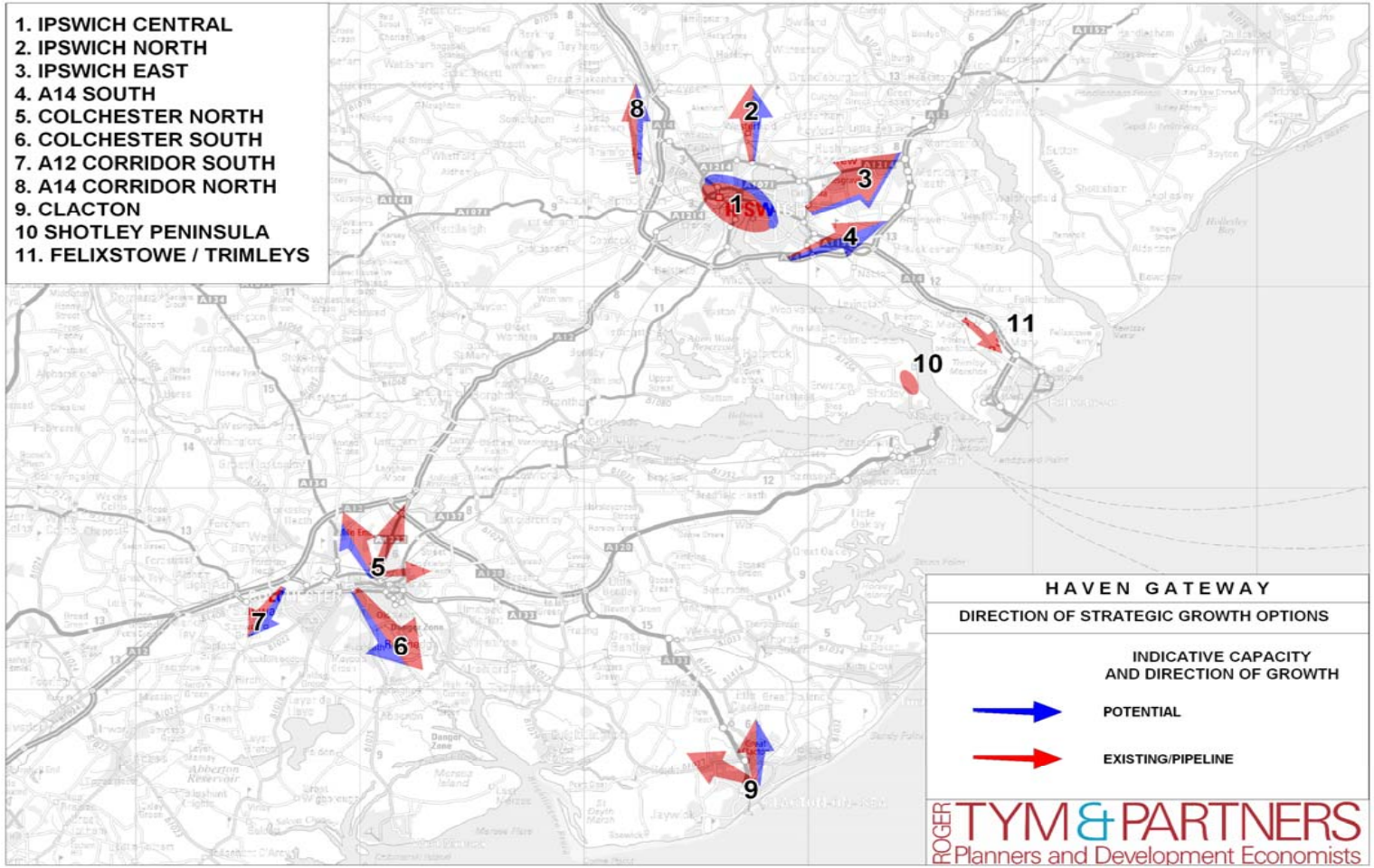
these broad strategic directions for growth that could be developed, irrespective of sustainability considerations or infrastructure constraints.

3.39 As can be seen from the figure, the bulk of the strategic growth options are focused in and around the two major urban centres of Colchester and Ipswich. This is not surprising given the need to adopt a sequential approach, i.e. focusing on city centre, brownfield areas first, then moving further out into the wider parts of the urban area (on brownfield land) and then finally moving into greenfield locations. Furthermore, this was required by Policy HG3 of the Draft East of England Plan, with nearly three-quarters of the total requirement in the Haven Gateway to be found in or on the edge of these two urban centres. Where strategic directions on the periphery of the urban centre have been identified, these have been well located in respect of the major transport corridors such as the A12 and A14.

3.40 The option at Felixstowe reflects its status as major employment centre linked to the port. Furthermore, this is underpinned by the potential future expansion of the port, a decision on which is awaited at this time. In reality, it is questionable as to whether both Felixstowe and the Bathside Bay port proposal will be granted, particularly as permission has been given to expand the Shellhaven port in the Thames Gateway. As such, opportunities for housing growth must be linked to the need created by an expanded employment market created by port expansion.

3.41 Clearly not all of this identified potential will be needed and there are substantial theoretical surpluses in all districts. Also, each district ultimately has its own individual requirement to be delivered and would not be expected to deliver more in order to meet another district's shortfall. In this report we have merely presented options and it is the responsibility of the individual districts through the LDD process to determine which set of directions should be taken forward and in what proportions.

Figure 3.2 Direction of Total Strategic Growth Options



4 INFRASTRUCTURE ISSUES

Introduction

4.1 The main driver of the requirements for infrastructure arising from the growth proposals for the Haven Gateway is the combination of housing and population growth. Table 4.1 below summarises both these. In some cases the growth in population appears small in relation to the increase in the number of dwellings. This is because the fall in household size over the study period has the effect that a substantial proportion of the new dwellings are required for the current size of population rather than catering for an increase.

Table 4.1 Haven Gateway - Planned Dwelling and Population Change 2001-2021

	Dwellings RSS	o/w Haven G.	o/w edge of Ipswich	Haven G %	Total Pop. increase	Pro-rata est. Pop. increase
Colchester	17,100	17,100		100	23,953	23,953
Tendring	8,500	8,500		100	4,523	4,523
Ipswich	15,400	15,400		100	28,223	28,223
Babergh	5,200	2,000	600	38.5	5,691	2,189
Suffolk Coastal	10,100	7,050	3,320	69.8	10,772	7,519
Mid-Suffolk	7,700	790	790	10.3	9,993	1,025
Totals	64,000	50,840				67,432

Source: DEEP and Chelmer

Approach

4.2 We have generally adopted a 'bottom-up' approach: contacting agencies and authorities and obtaining their assessment of the infrastructure requirements of the projected growth levels. This has not been possible for most categories of community infrastructure, such as libraries and leisure facilities, since their identification is dependant on a greater degree of detail and housing locations and types than is yet available. In these cases we have adopted a 'top-down' approach, largely based on Essex County Council's report on costing the infrastructure implications of the housing growth proposed in the DEEP. In a few cases we have estimated costs ourselves, based on previous experience, or extrapolating from estimates for similar schemes. In the schedules of infrastructure and costs in Appendix B our estimates are in italics.

4.3 In listing the infrastructure we have divided it into four classifications:

- Schedule 1 - Infrastructure directly linked to the growth options (all categories).
- Schedule 2 – Transport infrastructure improving connectivity within the Gateway but not directly linked to growth options.
- Schedule 3 – Transport infrastructure of regional significance in the Gateway.
- Schedule 4 – Non-transport infrastructure not, or not yet, linked to growth options.

4.4 The table below summarises the total costs of infrastructure identified by category and phase. We discuss the main findings under each category below. It will be noted that there are no costs for some categories of infrastructure, the main ones being utilities. The reasons for this and our findings on them are also discussed below.

Table 4.2 Summary Infrastructure Costs by Phase

Category	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021
Transport	**2,043.49**	298.38	661.61	1,083.50
Education	**105.60**	34.08	55.73	15.80
Health	**152.50**	136.00	12.50	4.00
Police	**18.00**	6.00	6.00	6.00
Fire Service	**2.60**	0.00	1.30	1.30
Community Centres	**56.00**	18.00	19.00	19.00
Sport/Liesure Centres	**28.00**	9.00	9.00	10.00
Outdoor Sports	**24.00**	8.00	8.00	8.00
Playspace	**21.00**	7.00	7.00	7.00
Libraries	**6.00**	2.00	2.00	2.00
Flood Defences	**45.00**	45.00	0.00	0.00
Total	2,502.19	563.46	782.14	1,156.60

Source: Roger Tym & Partners

4.5 We have assessed the requirement for, and costs of, affordable housing separately, and our findings are set out in the next section.

Transport

Costs

4.6 The costs of schemes identified totals £2 billion, approximately 80% of the total identified infrastructure costs. In round terms, £90 million is for schemes directly related to growth options, £0.5 billion is for schemes improving connectivity in the Gateway, and £1.5billion is for schemes whose main role is to link the Gateway to the region and the nation as a whole. In practice, many of the schemes for improving connectivity also have contribute to one or more of the growth options, and this is reflected in the tables on the page after next, which group schemes for the two RICs, Colchester and Ipswich, from both Schedules 1 and 2.

Phasing

4.7 Where we have been given indications of phasing by local authorities we have used these. Otherwise, for schemes linked to the growth options we have phased provision on the assumption that development within options with a high proportion of PDL will come forward for development before those with a high greenfield element. With the potential for development in and close the town centres we have assumed that schemes urban transport packages and schemes facilitating urban movement, such as the A133 in Colchester, will need to come forward early in the plan period.

4.8 Outside the urban areas we have been guided by the findings of the A14 corridor study and the need for infrastructure to underpin development of Bathside Bay or Felixstowe.

Transport linked to Growth Options

4.9 Key transport projects for accessing growth option areas are:

- A bridge to the Island across New Cut (Ipswich Central).
- Measures to support non-car modes and (possibly) improvements to Westerfield Station (Ipswich North).

- A bus/cycle lane across Rushmere Common and initial funding for public transport (Ipswich East – this direction lies within Suffolk Coastal District).
- Colchester Northern Access Road and redevelopment of Hythe station (Colchester North).
- Improvement of Colchester Town Station and provision of pedestrian and cycle networks (Colchester South)
- Stanway Western Bypass (A12 Corridor South). Also facilitiates access to Colchester South).
- New railway station, highways improvements and A14 Junction improvements (A14 Corridor North).
- Station improvements and initial funding for public transport (Felixstowe).

Movement within the Haven Gateway

4.10 Both Colchester and Ipswich are Regional Interchange Centres (RICS), and there is considerable housing potential in and around the central areas. As already noted, the urban schemes outlined in this section contribute to enabling the growth options as well as facilitating growth generally.

4.11 The Colchester Integrated Urban Package and Ipswich Sustainable Transport Package are the two major projects to develop access to the two town centres by non-car modes. Improvements to interchange facilities are central to both. Specific projects at Colchester include improvements to Colchester Town Station and a new bus station.

4.12 For Colchester, P&R sites are proposed for Stanway and Cuckoo Farm. At Ipswich, it is proposed to expand the existing P&R sites as they reach capacity.

4.13 For Colchester the main issue identified for movement across the urban area is the improvement of the A133 corridor in the urban area.

4.14 In Ipswich the main issue is East-West movement in the urban area. This currently gives rise to a high proportion of the traffic on the Orwell Bridge stretch of the A14. The proposed Wet Dock Crossing and E Bank Link Road are major schemes which could improve E-W movement within Ipswich and reduce the pressure on the A14. They are currently being evaluated through the development of the Ipswich Transport Strategy (ITS) and an IBC retail assessment respectively.

4.15 Outside the main urban areas the main projects are:

- Colchester-Clacton rail improvements (identified in the RTS).
- Marks Tey station interchange.
- A120 – A133 junction (N-S link).
- A12 improvement between Colchester and Ipswich.
- Enhancement of the Felixstowe-Harwich-Shotley foot ferry to an all year service.

Table 4.3 Transport Infrastructure in Ipswich Area

Note: this does not include measures to enhance the capacity of the A14 corridor (see Schedule 3 in Appendix B), which we have categorised as strategic. We appreciate that these also have implications for local movement in the Ipswich area.

Direction/Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021
	IPSWICH AREA				
Ipswich Central	**Bridge to Island site**	16.00	16.00		
	Route through Education Quarter	*5.00*		*5.00*	
Ipswich North	**Measures to support non-car modes**	*5.00*		*2.50*	*2.50*
	Initial support for public transport	*0.50*		*0.50*	
	Improvements to Westerfield Station	*1.00*			*1.00*
Ipswich East	**Bus/cycle lane across Rushmere Common**	1.00	1.00		
	Initial support for public transport	*0.50*		*0.50*	
A14 South	**Initial support for public transport**	*2.00*	*1.00*		*1.00*
A14 Corridor North	**New Railway Station**	14.00	14.00		
	A14 Junction Improvements	*4.00*	*4.00*		
	Highway Improvements	*6.00*	*6.00*		
Ipswich - Access	**Ipswich Sustainable Transport Package**	15.00	15.00		
	Expansion of Park & Ride Sites	*1.50*		*1.50*	
Ipswich - East-West Movement	**Wet Dock Crossing**	60.00	60.00		
	East Bank Link Road	60.00	60.00		
	Other traffic management measures	2.00		2.00	
Ipswich Area Sub-totals		**193.50**	**177.00**	**12.00**	**4.50**

Table 4.4 Transport Infrastructure in Colchester Area

Direction/Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021
	COLCHESTER AREA				
Colchester North	**CNAR Phase 3**	20.00	20.00		
	Redevelopment of Hythe Station	*2.00*		*2.00*	
Colchester South	**Improvements to Colchester Town station**	*2.00*		*2.00*	
	Pedestrian and Cycle Networks	5.00		5.00	
A12 Corridor South	**Stanway Western Bypass**	7.00	7.00		
Colchester - Access	**Colchester Integrated Urban Package**	20.00	20.00		
	Colchester Bus Station	10.00	10.00		
	A12/A134 Junction	20.00	20.00		
	Cuckoo Farm P&R	4.70		4.70	
	A133 Corridor congestion and accessibility	13.80	13.80		
	Stanway P&R	4.70	4.70		
	Essex LTP2 - tackling congestion	20.41		20.41	
Colchester Area Sub-totals		**129.61**	**95.50**	**34.11**	**0.00**

Table 4.5 Transport Infrastructure in the Rest of the Gateway

Direction/Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021
	REST OF GATEWAY				
Movement in rest of Gateway	**Colchester - Clacton Rail Improvements**	10.00	10.00		
	A120-A133 junction improvements	10.00		10.00	
	A120 D2 Hare Green to Harwich	227.00		140.00	87.00
	A133 west of Weeley	8.00		8.00	
	Marks Tey Station Interchange	*2.00*			*2.00*
	New Ferry landing facility at Felixstowe	*1.00*		*1.00*	
	Essex LTP2 delivering accessibility	7.88	7.88		
Rest of Gateway Sub-total		265.88	17.88	159.00	89.00

Improvements to Strategic Corridors

4.16 There are two main strategic corridors in the Gateway: the A12 and A14. Of these, the A14 is most crucial in terms of immediate issues. The A120 is also of strategic significance.

A14

4.17 The Newmarket to Felixstowe section of the A14 Corridor has now been completed. The major issue in the Gateway is congestion on the A14 on the section from the Copdock interchange with the A12 across the Orwell Bridge. The findings of the Corridor Study are that a combination of measures will obviate the need for major new infrastructure during most of the Study period. These include:

- Improvements to the rail freight network (see below).
- Smart demand management to encourage more sustainable travel.
- Improved management of the A14, with active management on the Orwell Bridge.
- Improvements to the Copdock Interchange (the proposed phase 1 improvements include additional lanes and signaling – it is not clear whether Phase 2 – grade separation - will be required in the Study period).
- Delivery of a transport strategy for Ipswich.
- Potential East-West capacity in and around Ipswich (see 4.11 above). A further option is an Ipswich northern by-pass, but as current problems are on the south side of Ipswich this appears unlikely to receive detailed consideration early in the Study period.

4.18 Phase 2 of the Felixstowe-Nuneaton rail upgrade is in the RTS. Phase 2 will see the line upgraded to Peterborough, with a W10 clearance and capacity enhancements to the East Coast mainline, giving access to South Yorkshire. This will be funded by Hutchison Ports for completion by 2009 if the FSR is approved.

A12

4.19 In the A12 Corridor the main projects are:

- Improvement of the A12 from Colchester to the M25.
- Great Eastern Mainline Capacity Increases.

4.20 Both of these are identified in the RTS.

A120

4.21 This divides into two distinct sections, east and west of Colchester. To the east is the dualling from Hare Green to Harwich which will be required if Bathside Bay goes ahead (we have actually listed this as a scheme improving movement within the Gateway (Schedule 2). To the west is the dualling from Braintree to Colchester, strengthening links to Stansted (both in the RTS).

Education

4.22 We have been provided with sufficient information to link school provision – both new schools and extensions - to growth options, and these are set out in Appendix B, Schedule 1. The exception is the requirement for a new secondary school for Ipswich, whose exact location will depend on the pattern of growth.

4.23 Education is the third largest category in terms of expense, at £102 million. In estimating schools costs we have assumed that new primary schools will include a nursery; and that this will account for the bulk of capital expenditure on early learning provision. We have also made an allowance for fitting schools out.

4.24 We have not included any costs for Further and Higher education as expansion programmes are aready underway. We understand that the rebuild/extension of Suffolk College and the University Campus Suffolk are underway on the Ipswich Education Campus. Significant expenditure is also being undertaken over the next three years on the rebuild/extension of Colchester Institute (at Colchester and Clacton) and Anglia Ruskin University to meet the realignment of of the FE/HE offering towards vocational skills for 16-19 years olds and HE. It is difficult to predict requirements for capital expenditure on FE/HE later in the plan period: the target age groups are forecast to decline in numbers, but the institutions will be seeking to increase the percentage of those age groups using them.

Health

4.25 Health is the second largest category of infrastructure, at £153 million. We have obtained information from the PCTs covering the Gateway and the Essex Rivers Healthcare NHS Trust, covering hospital provision for the Colchester area. Where we have information on provision related to growth options we have included this in Schedule 1. Where it has not been so linked we have included it in Schedule 4. We have not been able to obtain data on future capital expenditure on hospital facilities in the Ipswich area, but consider that the forecast population growth will give rise to a need for investment of the same order as that identified for Colchester.

4.26 Given the trend towards greater reliance on primary care, we have not extrapolated current Colchester hospital capital programme forward, to take full account of proposed growth in the Gateway.

Emergency Services

4.27 The requirements for Police and Fire Services have been estimated on a top-down basis, as there is insufficient detail on housing numbers and locations to identify requirements more precisely. This involves basing future provision from current ratios of officers to population, and the accommodation they require. We have used the ratios and costs in ECC's report on infrastructure needed for growth in the County.

Community Services

4.28 The requirements for these have been based on the same approach as the emergency services.

4.29 The requirement for community halls is based our approach in earlier reports on infrastructure in the South East, where we envisaged large halls playing a multi-purpose role in delivering day care and youth services, to name but two, we consider that the costs shown in Schedule 4 are high, and that there would probably be a higher degree of shared use of existing facilities than envisaged.

Flood Defences

4.30 The only major scheme identified by the Environment Agency is the Ipswich Flood Defence Strategy. We have included this in the first phase as the EA advise that it will be required before they can permit additional development in the Waterfront area of Ipswich.

Other Services

4.31 We have not included costs of Social Services and care services generally, as the main costs here are revenue rather than capital. Similar considerations have applied to Waste Management, where the costs relate to the requirement to reduce use of landfill rather than growth.

Utilities

Water

4.32 The EA have commented that water resources in the area are fully committed, and increased demand will have to be met by greater efficiency of use, although within this context, further water supply can be found. The measures they envisage include demand management through metering, building in efficiency into new dwellings through measures such as low-flow taps and reducing leakage in the distribution system.

4.33 Tendring Hundred Water Company have identified some specific requirements for strengthening supplies: these are listed in Schedule 1.

4.34 Anglian Water have identified that most of the growth options will require reinforcements to supply- new or larger water mains. They are not able to cost these (or sewer requirements) until detailed plans are available.

4.35 The following growth options will also require new sewers, or reinforcement:

- 1 - Ipswich Centre
- 2 – Ipswich North
- 3 – Ipswich East
- 4 – A14 South (it should be noted that the EA have concerns about damage heathland here)
- 6 – Colchester North (it should be noted that the EA is concerned about drainage issues here).
- 7 – Colchester South
- 8 - A12 Corridor South
- 10 – Clacton
- 12 – Felixstowe.

4.36 The water companies do not anticipate a requirement for major investment in water or sewerage treatment plants. Most of the investment required will initially be funded by developers. However the EA will require a review of the consents of many of the sewage works with increased flows, which may lead to a requirement for capital expenditure.

Electricity

4.37 The position with electricity supply is similar to that for water, except that there are no strategic queries over supply. EdF Energy have not identified any major infrastructure required to meet the additional demand from proposed growth in the Gateway. They have identified several supply reinforcements required for the growth options.

5 AFFORDABLE HOUSING

The Requirement for Affordable Homes

5.1 We take the overall housing requirement to be 50,840 in the period 2001 – 2021. The Draft Sub Regional Housing Strategy refers to an aspirational target of 40% affordable housing and we have adopted this even though it is recognised that this will not provide the numbers of affordable homes that Local Housing Needs Surveys suggest would be appropriate, because it is a high target. It should be noted that the DEEP (Policy SS13) calls for an average of 30% affordable housing across the region for the plan period.

5.2 The 40% target would suggest that 20,336 affordable homes will be required. We have no information on the number of completions since 2001 or the number of homes that will provided pursuant to existing planning permissions and therefore consider that it would reduce distortion in this analysis if the target is calculated on an annualised basis. The total of 20,336 is equivalent to 1,017 affordable homes per annum during the plan period.

5.3 The Greater Haven Gateway Sub Regional Housing Strategy also refers on Page 9 to a need for 5,000 affordable homes and on Page 14 to a requirement for 400 Intermediate Tenure homes within this. It does not provide a basis for comparing this with the requirement we have identified here but we have used the ratio 4,600 social rented homes (SRH) / 400 intermediate homes split to suggest that an appropriate split for the 1,017 affordable homes in the Haven Gateway might be 936 social rented homes to 81 intermediate tenure homes. (In what follows we distinguish between the area we are concerned with here, the Haven Gateway, with the area covered by the Sub Regional Housing Strategy, the Greater Haven Gateway).

5.4 In calculating the cost of providing these 1,017 affordable homes, we have assumed that the public sector budget will be dedicated to securing new homes at a subsidy cost per unit which we calculate below, and that the balance of the overall requirement will be met through Section 106 Agreements. This reflects the direction of current policy and we are aware that at present the budgetary spit isn't as neat as this.

The Cost and Subsidy Required for Affordable Homes

5.5 As a starting point we need to determine the overall cost of provision. To do that we have multiplied the total number of affordable homes required by the estimated development cost of the average new home. We have taken this to be a Housing Corporation 'construction standards compliant' two bedroom flat or small house of around 70m² for 3 or 4 people. Although the home itself should not cost more than around £50,000 additional costs will include groundworks, fees, access on site infrastructure etc. and this will push the typical price up to around £65,000 with wide variations. Land costs, off site infrastructure and other costs might average £45,000 per unit bringing the total price to £110,000. There will be a lot of variation in building and land costs, depending on the nature and location of the site. [This latter figure broadly accords with the Total Cost Indicators most recently published by the Housing Corporation. For instance, the TCI for a home of this size in Colchester in TCI Group C2 is £90,300 plus 9% Local Authority specific enhancement plus 15% on costs i.e. £113,000. This would be marginally lower if a home is bought 'off the shelf' rather than developed directly]. We will take the typical cost as being £110,000 per unit. (Note that these figures differ from those used in the appraisal of a private sector scheme in Table 5.4. The difference is primarily a higher land cost reflecting a preponderance of houses instead of flats, and the developer's profit).

5.6 We assume that the amount that an RSL can afford to pay for new rented homes will equate to the sum of the capitalised value of the rental income net of management and maintenance costs, and the amount of subsidy available.

5.7 In November 2004 the Housing Corporation published a Guide to local rent levels for socially rented housing. (HC: A Guide to Local Rents 2004. Part Two: Social Landlord Rents). These vary between RSL's. In the table below we have set out the Mean Target Rent for RSL's in each area together with the highest target rent reported by an RSL owning more than 20 units. Usually developers will be keen to use what competition they can engender among RSL's to get the best offer for the affordable housing that they are required to provide, but it isn't always the case that the RSL's with the highest target rents will wish to bid or will be encouraged to do so by Local Housing Authorities. We have therefore based our analysis on the assumption that the successful RSL will be seeking a target rent which lies mid way between the mean and maximum target rent in their area. As can be seen from the table this figure is quite consistent across the area and we have thus taken it to be £65.12 per week.

Table 5.1 RSL Rents in 2004

LA	Mean Target Rent	Max target Rent	Max Target RSL	Average of Mean & Max targets
Colchester	£64.54	£69.35	Springboard	£66.95
Tendring	£61.48	£72.18	L&Q	£66.83
Ipswich	£55.18	£72.26	Tower	£63.72
Baburgh	£61.03	£69.35	Hanover	£65.19
Suffolk Coastal	£61.03	£69.35	Anchor	£65.19
Mid Suffolk	£59.47	£66.22	Suffolk	£62.85
Average of Mean and and Maximum Target Rents				**£65.12** p.w.
		Annual Equivalent		**£3,386**

Source : Housing Corporation data

5.8 We have then assumed that from this £3,386 p.a. (which excludes service charges covering a restricted number of items) around 20% will be needed for management, maintenance and to provide a reserve for major repairs. The amount left to service any interest payments is therefore £2,709. Assuming that rents will rise marginally over the next few years and finance based on an interest only loan at 5.25% (i.e. approx. 0.75% over LIBOR, which we believe is an optimistic assumption at present), this suggests that the net rental income in the next few years could support a loan of (say) £50,000. It follows that the subsidy required to purchase or develop a new social rented home will on average be £60,000.

5.9 With regards to Intermediate Tenures, there are a range of schemes ranging from shared ownership to sub market renting. We have no information to determine what mix and policy might be adopted in this respect. Typically, a subsidy of around 25% might be needed for each intermediate tenure property. This is equivalent to £38,500 for our typical home.

5.10 The total annual subsidy required to meet the affordable housing target will therefore be as shown in Table 5.2 on the next page: £56.2 million for SRH and £3.1 million for intermediate tenure housing.

Table 5.2 Calculation of Total Annual Subsidy from Grants and S106 Agreements for Affordable Housing

	Social Rented Homes	Intermediate Tenure Homes
Number of Homes required per annum	936	81
Total Cost @ £110k per unit	£110,000	£110,000
RSL Loans and /or Purchaser equity per unit	£50,000	£71,500
Net Subsidy Required per unit	£60,000	£38,500
Total Subsidy Required from Grants and S106 Agreements	£56,160,000	£3,118,500

5.11 We have analysed the cost of providing this housing as follows below.

Public Funding

5.12 In terms of public funding for housing, the East of England Regional Allocation Statement for the two year period from 2004-6 provides £25.65 for the two sub regions that comprise Greater Haven Gateway. (NE Essex £11.67m and SE Suffolk £13.98m). This was from a regional allocation for East of England of £204m. We understand that this sum also covers Braintree and Maldon as well as the districts listed above. We have been provided with population figures from 2001 which suggest that the population of the six districts we are concerned with here was 331,800 in 2001 and that Braintree and Maldon had a total population of 98,300. So if the public subsidy is allocated pro rata to population we would expect to see the total allocation for the Haven Gateway at the reduced total of £ 19.79m.

5.13 A press announcement from ODPM in August stated that the regional allocation for East of England for 2006-2008 is £432m. This is a considerable increase in the 2004-6 figure. As far as we are aware it has not yet been reflected in an updated Allocations Statement from the Housing Corporation. If we assume that a proportionate increase will be allocated for the Haven Gateway in the next Regional Housing Strategy, this suggests a potential public investment of £41.91m for 2006-8 or £20.95m per annum. (We are aware that these allocations are simply a budget for new and additional and include existing commitments but do not have sufficient information to refine the estimate further in the context of these short term distortions and trust that our approach of annualising the requirement will reduce their impact on the conclusions).

5.14 The Draft Sub Regional Housing strategy proposes that 35.5% of the budget should be allocated to RSL's for 'growth and regeneration' (i.e. £7.44m p.a. overall) and a further 16.5% (£3.46m) for key workers. (We also note that it states that the average subsidy per home has hitherto been £37,000 per unit, which is far less than the average £60,000 subsidy that we are suggesting it takes to provide each additional social rented home. The main reason for the difference is that up to now grant has been provided in connection with S106 agreements, which have reduced the overall subsidy required per grant funded unit). Again, we don't know how much of the current allocation is dedicated to subsidy of stock procurement pursuant to existing S106

Agreements but are trusting that our annualised approach since will minimise the risk of distortion).

5.15 There are three further forms of public subsidy which we have not taken into account here.

- In the past RSL's have paid higher prices for new stock and made up the difference in cost by cross subsidy within schemes and use of their own resources. Their ability to do this has diminished, with reserves committed and increased borrowing capacity more fully utilised. In contrast, a rise in interest rates might lead to a reduction in the amount that they can afford to pay.
- In some schemes there have been other forms of public subsidy such as free land from Local Authorities. We have not been able to quantify this and in any event it is our impression that a long period of pressure to sell off public land has reduced capacity in this respect.
- We have not sought to account for RSL receipts from the future sales of equity from shared ownership homes.

5.16 Set against these, we believe that our assumption that an RSL could afford to borrow £50,000 towards the cost of the the notional new affordable home, is realistic. On this basis:

- £7.44 m p.a.Housing Corporation subsidy towards investment by RSLs in new SRH, at a rate of £60,000 per unit, should procure 124 new homes p.a.
- £3.46 m p a Housing Corporation subsidy towards investment by RSLs in new intermediate tenure new social rented homes, at a rate of £38,500 per unit, should provide 90 new homes p.a.

Developer Subsidies

5.17 It follows that developers will be looked at to provide new social rented homes and new intermediate tenure homes per annum as reflected in the table below:

Table 5.3 Analysis of Annual Requirement for Affordable Housing Provision Through S106 Agreements

	Social Rented	Intermediate Tenure
Total Number of Homes Required	936	81
Estimate of total number of homes funded through public grant	124	90
Residual requirement through S106 Agreements	812	Nil

5.18 The residual annual requirement of 812 SRH units represents a level of affordable housing of 32% to be met from S106 agreements.

5.19 This reflects the Sub Regional Housing Strategy which says that “given the limited availability of other capital subsidy for affordable housing, local authorities need to recognise that there is generally no guarantee of subsidy for the affordable housing required other than what they can secure through a Section 106 agreement. In considering the balance of uses for planning gain, it is therefore advisable for local authorities to take as the starting point a need for all subsidies for affordable housing to come from planning gain. If this position needs to be modified as a consequence of their negotiations with developers, the prospect of a shortfall of subsidy from this source then sets the parameters for seeking capital subsidy from elsewhere to make up the gap”. This reflects the broad thrust of housing corporation policy and effectively

makes their funds go further by seeking to privilege affordable housing as a recipient of Section 106 contributions. But this is not always realistic in terms of the economics of developing the specific sites allocated for housing in local plans. In particular, brownfield land will cost more to develop, particularly when it has existing use value, and reductions in the net land value due to either housing or other requirements in Section 106 Agreements will sometimes make it uneconomical.

5.20 In the past, developers have often met affordable housing requirements by providing free land to RSL's for social rented units, and a subsidy of perhaps 20% or so for intermediate tenure units, with the precise amount in the latter case being determined by a number of factors, not least of which was the policy on pricing when the units were sold on. (Now, the Regional Housing Strategy requires that units provided as 'intermediate tenure' contributions should remain affordable in perpetuity). We believe that the impact of new and emerging policies will be that, not only is the overall number of affordable housing units that is sought going to rise, but the effective subsidy per home will also increase to the levels we have indicated thus catching developers with a 'double whammy'.

5.21 Residential land prices in the region have hitherto been healthy but we do not believe that the potential impact of these policy changes is fully reflected in the reported levels of housing land transactions in recent years. The key question is whether developers can afford to pay for this much affordable housing. We are concerned that these issues of affordability are insufficiently understood in the context of competing demands for s106 funding and, in some case, high development costs associated with brownfield sites.

5.22 We analyse this in Table 5.4 , using a simple residual value model of potential land values and assuming that the overall number of units required is reflected in the aspirational policy of achieving in excess of 40% of units in all new developments and that the breakdown of that 40% between different tenures will differ from site to site. Our 'base case' is a notional site in the area where new 80 sq m houses could be sold for around £160,000 and a larger three or small four bedroom home for £200,000. This is probably realistic for Ipswich and the cheaper areas but low for Colchester and more expensive locations but most developers will have to take an optimistic view of price trends if they are to be successful when bidding for land in competitive situations.

Table 5.4 Model Appraisal of Notional New Housing Development

Haven Gateway Summary Appraisal
45 units averaging 80 sq m each on 1 ha.

	Quantum M2	Rate £	Total
Completed Development Value			
Total Floorspace Per ha	3600	of which:	
Market Housing	3,600	£2,000	£7,200,000
Social Rented Housing		£715	£0
Intermediate Housing		£1,400	£0
Net Receipt			£7,200,000
Development Costs			
Land Price			**£2,600,000**
Land Purchase Costs		5.00%	£130,000
Building Cost M2 / £ M2	3,600	£700	£2,520,000
External Works (% of build cost)		12.00%	£302,400
On Site Infrastructure			£100,000
Other S106 costs			None
Fees (% of all construction)		10.00%	£292,240
Marketing		2.50%	£180,000
Other Costs (% of build costs)			£25,000
Developers profit (% of cost)		17.50%	£1,076,187
Total Costs			£7,225,827

5.23 We then prepared a simple sensitivity analysis (Table 5.5) showing the effect that different levels of affordable housing provision have on net land values based on the above appraisal and assuming that developers receive:

- £715 sq m for social rented housing, approximately equivalent to £50,000 for a 70 sq m social rented home
- 70% of the market value for an intermediate tenure home.

5.24 For comparative purposes and to reflect historic patterns of section 106 obligation, we added an analysis of the effect on overall land values of a requirement to provide free land to an RSL equivalent to 25% of the site area. (This produces a land value that is almost identical to the figure for Colchester reported by the Land Registry).

5.25 We then recalculated the land values produced by each set of assumptions above, using a second market scenario in which house prices equate to £2500 sq m (£200,000 for the 80 sq m 2/3 bed house and £250,000 for the 3/4 bed house).

Table 5.5 Sensitivity of Land Prices to Affordable Housing Policies

Sensitivity of Site Values per Hectare

	Value of Homes For Sale	
	£2000 sq m	£2500 sq m
Affordable Housing Provision		
No affordable housing	£2,600,000	£4,150,000
Provision of 25% of site 'free' for affordable housing	£1,950,000	£3,110,000
25% Social rented & 5 % Intermediate tenure : Base Case	£1,600,000	£2,670,000
30% Social rented and 5% Intermediate tenure	£1,490,000	£2,490,000
35% Social Rented & 5% Intermediate Tenure	£1,250,000	£2,170,000
20% social rented & 20% intermediate tenure	£1,550,000	£2,630,000

5.26 We note from this that:

- Providing 30% affordable housing (the Base Case in the Table above, which is the closest version of our model to the 32% SRH funded by S 106 needed to meet the aspirational figure of 40% for affordable housing) has the effect of reducing land values by 38% in the first scenario and 36% in the second. This is before any further Section 106 payments and obligations are accounted for and assume that there are no exceptional development costs or site assembly issues.
- The trend away from developers satisfying affordable housing requirements by providing free land substantially erodes land values (comparing the effects on land prices of providing 25% of the site 'free' with the Base Case above illustrates this) .

5.27 In terms of the cost of meeting other infrastructure requirements, in areas like Milton Keynes and Ashford, figures of around £17,000 per dwelling have been mooted as a Section 106 'tariff'. (The basis of the calculation varies between the two). If this figure

was sought here, and on the unlikely assumption that tbe payment would be made on completion of the development, the residual value of the land in our base case would fall to £820,000 ha in the first Scenario and £1,900,000 in second scenario. In other words, if this level of Section 106 tariff were imposed on top of a requirement for 30% affordable housing on the basis set out in our 'base case' there would be an overall, diminution in the gross vale of the land of of 68% in our first scenario and 54% in our second scenario respectively. At this level, or even at a more modest level, the relatively thin research evidence available suggests that there will be an impact on land supply. Analysis of typical site assembly and remediation costs suggests that it would be far more difficult to secure the development of brownfield sites or sites with other difficult characteristics such as poor drainage. For instance, an old but functional 1000 sq m warehouse on a site might easily be worth more than £400,000, and the cost of decontamination, breaking out and disposing of hardstanding to landfill, and using deeper foundations on made ground could add a similar sum to development costs.

Conclusions

5.28 The level of public subsidy available which we have identified will be sufficient to meet the requirement for intermediate tenure housing, but not make a substantial contribution towards meeting the need for SRH. Eighty-seven percent of SRH and 80% of the overall affordable housing requirement would have to be met from S106 (Table 5.3). The annual level of S106 funding required to fund this would be £48.7 million.

5.29 The cost to developers and landowners of providing affordable housing without subsidy other than through a purchase price paid for by RSL's using loans secured against the net rental stream will substantially reduce land values, as shown in Table 5.5. For our Base Case, this will be by 38% or 36%, depending on the assumed value of houses for sale.

5.30 This reduction in land values will have a critical effect on the ability to use Section 106 Revenues to fund other forms of necessary infrastructure or to procure the development of brownfield land.

5.31 The most severe problems in this respect might be faced on areas where house prices are lowest and where, conversely, the need for funds for regeneration purposes is often greatest.

6 SUMMARY AND CONCLUSIONS

6.1 The key points to note from the assessment are as follows.

Residential Capacity

- Babergh and Mid Suffolk have already identified or delivered sufficient housing capacity to fulfil their requirements for the Haven Gateway in the Draft East of England Plan.
- The potential to increase density on existing or identified sites in Ipswich would be sufficient to alleviate the identified shortfall.
- There is limited potential on existing identified employment sites that may have the greatest potential to be released for housing. However, again it could provide sufficient capacity in Ipswich to alleviate the identified shortfall.
- Suffolk Coastal has the largest remaining deficit after the first phase of the sequential approach has been adopted (i.e. taking into account existing/identified sites, potential from increased capacity and potential on employment sites). This amounts to a minimum of just over 1,000 dwellings that would have to be accommodated on greenfield land.

Directions for Growth

- 12 strategic directions of growth have been identified. These all serve as options and each of them consist of area options. Not all of the strategic directions nor the total capacity of each has to be taken up. It is the role of the Local Development Framework (LDF) process to assess each of the options and take the chosen ones forward.
- Most of the strategic direction options are focused around the main centres of Ipswich and Colchester. Those on the outskirts of these centres are close to the strategic road network.
- The option at Felixstowe/Trimleys reflects its status as major employment centre linked to the port. Furthermore, this is underpinned by the potential future expansion of the port, a decision on which is awaited at this time.

Infrastructure and Phasing

6.2 The total cost of the infrastructure requirement we have identified for the Haven Gateway is £2.5 billion. Of this, transport totals £2.0 billion, approximately 80%.

6.3 The main transport issue is the linked one of growth in Ipswich Central, of East-West movement in the town as a whole and congestion on the adjoining sections of the A14. Subject to the evaluation being carried through development of the ITS, it appears that early action on this issue will be required to underpin continuing development in Ipswich Central, and eventually elsewhere in Ipswich.

6.4 In addition, providing for east-west movement through Colchester will grow in importance as the town grows.

6.5 Flood defence is also an issue affecting future development in Ipswich Central.

6.6 The main overall issue is that of funding. It is noteworthy that the service providers have identified developer contributions as a source of funding towards:

- Transport
- Education
- Primary Health Care
- Police; and

- Community Services – community, leisure, recreation and play.

6.7 The implication of this that there is a need for coordination to ensure that Sec 106 funding is sought for those services and facilities for which it is the highest priority, and for which it is most difficult to find alternative sources of funding.

6.8 A strategy is needed to ensure the deployment of developer contributions to best effect. RTP, in our report on infrastructure requirements in the Greater South East, estimated that there might be an average of £20,000-worth of developer contributions per dwelling for open market sale – beyond this and the effect on land values might slow release of land for development. Ashford and Milton Keynes are considering 'tariffs' of the order of £17,000 per dwelling.

Affordable Housing

6.9 The level of public subsidy available will not make a substantial contribution towards meeting the need for affordable housing. The annual level of S106 funding required to fund the affordable housing to meet the RHS aspiration of 40% would be £48.7 million.

6.10 These costs will substantially reduce land values: by 38% or 36% depending on house prices achieved.

6.11 This reduction in land values will have a critical effect on the ability to use Section 106 Revenues to fund other forms of necessary infrastructure or to procure the development of brownfield land.

6.12 The most severe problems in this respect might be faced on areas where house prices are lowest and where, conversely, the need for funds for regeneration purposes is often greatest.

Related Issues

6.13 This study is a strategic assessment of residential and infrastructure needs up to 2021. It does not seek to identify particular schemes or be overly prescriptive. However, this approach can lead to particular issues being overlooked. We shall now consider these potential issues.

Housing Demand

6.14 Considerable levels of capacity are identified in Central Ipswich. Much of this development has been – and will continue to be – high density flatted development. Whilst this has been very successful, linked to a wider regeneration programme of particular areas in Central Ipswich, in particular around the quayside and along the waterfront, it cannot be guaranteed that this demand will continue. Put simply, there is a finite amount of one- and two-bed flats that can be sold in Central Ipswich and once this limit has been reached, demand will drop off. Whether this drop-off will be sufficient to impact on delivery will require regular monitoring and dialogue with housebuilders.

Major Port Proposals

6.15 Two major schemes that will underpin growth in the sub-region are the proposals at the ports of Bathside Bay and Felixstowe. Decisions on both schemes are due soon and both will create significant amounts of jobs in priority areas for regeneration.

6.16 Whilst the levels of housing proposed in each location are significant, they are not exceptionally high. Nevertheless, if the related port development were not to go ahead, then the ability of these locations to support housing growth would be questionable as both Harwich and Felixstowe have few prospects to deliver additional employment outside of the ports. Whilst this does not preclude out-commuting from these areas – particularly to the main centres of Colchester and Ipswich – it would have the effect of increasing commuter movements across the sub-region.

6.17 Furthermore, each development would require – and help to deliver – wider strategic infrastructure requirements. Therefore, the flip side is that these infrastructure requirements would be compromised if the proposed scheme was not delivered. In reality, it is questionable as to whether both Bathside Bay and Felixstowe would be approved. This is particularly the case given the recent decision to approve development of Shellhaven port in the Thames Gateway. The decisions on these schemes therefore take on critical importance.

APPENDIX A

Sustainability Criteria

The appraisal will be in two parts – an appraisal of strategic criteria and then an appraisal of local criteria. If a location fails on the strategic criteria, then it will not be assessed under the local criteria. For a location to fail, it has to score poorly (a 'C' score on the individual criterion) on at least three of the four criteria.

Following the assessment of local criteria, the areas of potential will be identified. For a location to be eliminated following the local assessment, it has to score poorly (a 'C' score on the individual criterion) on at least three of the 10 criteria making up both the strategic and local elements.

Strategic Sustainability Criteria

We propose to use four strategic criteria to assess each of the locations. They are as follows:

Sequential Approach

This simply considers whether a site is on brownfield or greenfield land. Sites with a stronger policy framework supporting development score strongest. The scoring is as follows:

- A. All on brownfield land
- B. Largely on brownfield land
- C. Mostly or completely on greenfield land

Regional policy context

This considers whether locations are within areas that have been designated for potential growth and development at a regional level (as opposed to the Structure Plan or Local Plan levels). The relevant designations are:

- Key Centres for Development and Change (Draft RSS, Policy SS2) – Colchester and Ipswich.
- Priority Areas for Regeneration (Draft RSS, Policy SS11) – Ipswich, Harwich, Clacton and Colchester.

Sites with a stronger policy framework supporting development score strongest. The scoring is as follows:

- A. Explicitly identified within a policy area
- B. Generally falls within a policy area
- C. Not within a policy area

Growth pattern

All the locations identified are adjacent to an identifiable settlement of some kind. We have adopted a sequential approach to site selection, whereby it is preferable for locations to be adjacent to larger settlements than smaller ones. The classification of settlements is either given in the Structure Plan, or based on the size of its population, as follows:

- Major centres (pop over 75,000) – includes Colchester and Ipswich.
- Large settlements (pop between 12,000 and 75,000) – includes Clacton, Harwich, Felixstowe, Hadleigh, Manningtree.
- Small settlements (pop less than 12,000).

The scoring is as follows:

- A. Major centres
- B. Large settlements
- C. Small settlements

Efficient movement

The principle of sustainable movement focuses on the journey to work, i.e. travel between residential and employment areas. As such, efficiency of movement is maximised by the proximity of residential areas to existing or allocated employment areas. Furthermore, this is even more the case if they are close to large strategic employment areas.

Designated strategic employment areas include:

- Adastral Park, Martlesham
- Ransomes Europark, Nacton Heath
- North Colchester
- East Colchester
- Felixstowe
- Harwich

We also consider that proximity to a railway station permits sustainable movement between residential and employment areas. As such, the additional consideration of proximity to a railway station is included – within 800m of a railway station is considered 'accessible' within the scoring system, reflecting the suggested walking threshold given by Llewelyn Davies in 'Tapping the Potential'.

The scoring is as follows:

- A. Accessible to strategic employment areas
- B. Accessible to other large employment areas
- C. Not accessible to any clearly identifiable employment areas.

Local Sustainability Criteria

We used six local criteria to assess each of the locations that pass the strategic assessment. They are as follows:

Relationship to adjacent development

The individual locations identified are assessed within their setting. The land use(s) of the adjacent areas needs to be considered. If development is not contiguous with its existing neighbouring uses, or if the existing and proposed land uses are not suitable to be adjacent to one another, then this will compromise the ability of the centre to function. Also, a potential issue is whether the locations is separated from the adjacent areas, either by road, railway line, open gap, river or by the general topography. If this prevents movement between the two areas, then there could be issues of severance. Equally though, there is potential for a development to cause coalescence between other urban areas. The purpose of the green belt is to prevent this from happening, so there is a strong presumption against any type of development which could cause coalescence.

Accordingly, the scoring is split into three categories, covering these factors individually. The score for this criterion is therefore cumulative. The scoring is as follows:

- A. No coalescence
- B. Coalescence of minor settlements
- C. Coalescence of major settlements.

- A. High contiguity
- B. Partial contiguity

- C. Little or no contiguity.

- A. Similar in character to existing land use
- B. Moderate compatibility with existing land use
- C. Incompatible with existing land use.

Efficient use of land

There are issues of whether the additional development is able to effectively support the facilities of the existing centres. If a location is likely to be of sufficient size to justify its own urban centre, then this will provide the potential for residential development around the centre to maximise densities at above 40 dph and possibly nearer to the upper end of the PPG3 range of 30-50 dph.

Locations that were below this threshold of having their own centre will, by definition, be less self-sufficient so are considered to be using land less efficiently. For the purposes of this assessment, locations of over 30ha gross are considered to require their own district/local centre.

The scoring is as follows:

- A. Location sufficiently large and suitable to justify own district/local centre (and therefore higher densities).
- B. Location adjacent to existing centre and of moderate size with limited potential to justify own district/local centre.
- C. Location not adjacent to existing centre and insufficiently large to justify own district/local centre.

Potential adverse impact on key environmental designations

The assessment considers the major national, county and local designations and the degree to which development would impact adversely on them.

Major developments could have a negative impact on the environmental assets of the county, such as Areas of High Landscape Quality and Nature Conservation Areas. Some environmental assets can gain from housing being developed in their locality. For example, the improvement of nearby Community Forests can be included as part of Section 106 contributions. Regional Parks could also benefit. Obviously, on the flip side, development within a Community Forest/Regional Park area is likely to have a detrimental effect.

It is not possible to fully present the environmental assets of the study area because these are not all mapped on a consistent basis. Some assets (e.g. protected species) are not mapped at all and some commonplace aspects of the environment may be highly valued in a local context. These would have to be dealt with on a site-specific basis.

The scoring is therefore as follows:

- A. No adverse impact
- B. Moderate adverse impact
- C. Strong adverse impact.

Constraints on development

The appraisal considers the possible negative environmental impacts on residents of the development itself, e.g. through noise and pollution from aircraft and traffic, as well as potential impacts on residents of neighbouring developments. In all cases, the potential for

mitigation of these impacts is explored, including whether the cost of doing such works would be prohibitive.

The scoring is therefore as follows:

- A. No significant constraints.
- B. Some significant constraints, but with potential for mitigation which is not deemed excessive on cost grounds.
- C. Significant constraints with no reasonable potential for mitigation on planning and/or cost grounds.

Accessibility to services/facilities

Locations will need to have access to major strategic services and facilities, e.g. hospitals, major retail, further education, etc. In particular, access to retail and community services is considered to be fundamental. In respect of retail, the Structure Plans gives a hierarchy of centres as follows:

- Major sub-regional centres – Colchester, Ipswich.
- Minor sub-regional centres – Clacton, Walton-on-the-Naze, Harwich, Felixstowe.
- Town centres – Hadleigh, Woodbridge, Manningtree.
- Minor town centres/district and local shopping centres – identified in Local Plans.

The scoring is therefore as follows:

- A. Location next to major centre with primary services/facilities (i.e. hospital, major retail, recreation, further education facilities).
- B. Location accessible to major centre with primary services/facilities (by convenient public transport).
- C. Location remote from major centre with primary services/facilities.

Accessibility to employment sites

Given the forecast shortage of employment land, we consider this criterion worthy of individual evaluation. In terms of reducing the need to travel, it is preferable at major locations to develop new employment land as well as housing. On smaller locations there is no possibility of developing employment land, so it is important that the dwellings are close to the major employment areas offering a range of employment opportunities.

The scoring is as follows:

- A. Location of sufficient size to incorporate substantial employment development.
- B. Location with substantial employment areas nearby.
- C. Location without substantial employment areas nearby and of insufficient size to incorporate own employment development.

APPENDIX B

Haven Gateway Infrastructure Requirements

HAVEN GATEWAY
INFRASTRUCTURE

SCHEDULE 1 - INFRASTRUCTURE LINKED TO GROWTH OPTIONS

OPTION	Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
1 **Ipswich Central**	Transport	Bridge to Island site	16.00	16.00			SCC/IBC	Developer	Needs to be evaluated - ITS
	Transport	Route through Education Quarter	*5.00*		*5.00*		SCC/IBC	Developer	Needs to be evaluated - ITS
	Education	Primary School & Nursery	3.55	3.55			SCC		Possible requirement - site at Duke St
	Health	GP Practice	1.50	1.50			PCT	PCT/LIFT?/Developers	
	Flood Defences	Ipswich Flood Defence Strategy	45.00	45.00			EA		
		Option sub-totals	**71.05**	66.05	5.00	0.00			
2 **Ipswich North**	Transport	Measures to support non-car modes	*5.00*		*2.50*	*2.50*	SCC/IBC	LTP/Developer	
	Transport	Initial support for public transport	*0.50*		*0.50*		SCC/IBC	Developer	
	Transport	Improvements to Westerfield Station	*1.00*			*1.00*	SCC/IBC	Developer	
	Education	Primary School & Nursery	3.55		3.55		SCC	SCC/developer	
	Health	GP Practice	1.50		1.50		PCT	PCT/LIFT?/Developers	
		Option sub-totals	**11.55**	0.00	8.05	3.50			

SCHEDULE 1 - INFRASTRUCTURE LINKED TO GROWTH OPTIONS (Cont'd)

OPTION		Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
3	**Ipswich East**	Transport	Bus/cycle lane across Rushmere Common	1.00	1.00			SCC	LTP/Developer	Improves access to P&R
		Transport	Initial support for public transport	*0.50*		*0.50*		SCC	Developer	
		Education	Primary School & Nursery	3.55		3.55		SCC	SCC/Developer	
			Option sub-totals	**5.05**	1.00	4.05	0.00			
4	**A14 South**	Transport	Initial support for public transport	*1.00*			*1.00*	SCC	Developer	
		Education	Primary School & Nursery	3.55			3.55	SCC	SCC/Developer	
			Option sub-totals	**4.55**	0.00	0.00	4.55			
5	**Harwich**	Education	Primary School and Nursery	3.55		3.55		SCC	SCC/Developer	
		Health	GP facility	1.50		1.50		PCT	PCT/LIFT?/Developers	
			Option sub-totals	**5.05**	0.00	5.05	0.00			
6	**Colchester North**	Transport	CNAR Phase 3	20.00	20.00			ECC	Developer	
			Redevelopment of Hythe Station	*2.00*		*2.00*		DfT Rail/ECC	DfT/LTP	

SCHEDULE 1 - INFRASTRUCTURE LINKED TO GROWTH OPTIONS (Cont'd)

OPTION		Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
		Education	330 place Primary School & Nursery	4.38	4.38			ECC	Developer	
		Education	420 place Primary School & Nursery	5.25		5.25		ECC	Developer	
		Education	Secondary School Extn	*7.00*	*7.00*			ECC	Developer/BSF?	
		Education	210 place Primary School and Nursery	3.55		3.55		ECC	Developer	May be relocation and expansion of exisitng.
		Education	Secondary School Extn	*7.00*		*7.00*		ECC	Developer/BSF?	
			Primary and Secondary Extensions	*10.00*			*10.00*	ECC	Developer/BSF?	Relates to a NE direction of development only.
		Health	2 GP practices with community facilities	3.00	1.50	1.50		PCT	PCT/LIFT?/Developers	
		Utilities	2km Water Main	0.20			0.20	Tendring 100	Tendring 100?	Relates to a NE direction of development only.
			Option sub-totals	**62.38**	32.88	19.30	10.20			
7	**Colchester South**	Transport	Improvements to Colchester Town station	*2.00*		*2.00*		DfT Rail/ECC	Developer	
		Transport	Pedestrian and Cycle Networks	5.00		5.00		ECC	Developer	
		Education	Primary School Extension	*1.50*	*1.50*			ECC	Developer	ECC may need to top-up funding
		Education	Secondary School Extension	*7.00*	*7.00*			ECC	Developer	ECC may need to top-up funding

SCHEDULE 1 - INFRASTRUCTURE LINKED TO GROWTH OPTIONS (Cont'd)

OPTION		Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
		Education	420 place Primary School & Nursery	5.25			5.25	ECC	Developer	
		Education	Secondary School Extension	*7.00*			*7.00*	ECC	Developer	
		Health	2 GP Practices with Community Facilities	3.00	1.50		1.50	PCT	PCT/LIFT?/Developers	Only one site identified
			Option sub-totals	**30.75**	10.00	7.00	13.75			
8	**A12 Corridor South**	Transport	Stanway Western Bypass	7.00	7.00			ECC	Developer	
		Education	210 place Primary School & Nursery	3.55	3.55			ECC	Developer (part)	Funding gap
		Education	Primary School Extension	1.73		1.73		ECC	Developer (part)	Funding gap
			Option sub-totals	**12.28**	10.55	1.73	0.00			
9	**A14 Corridor North**	Transport	New Railway Station	14.00	14.00			Network Rail	Developer	
		Transport	A14 Junction Improvements	*4.00*	*4.00*			HA	Developer	
		Transport	Highway Improvements	*6.00*	*6.00*			SCC	Developer	Would this include Chapel Lane Bridge?
		Education	Primary School & Nursery	3.55	3.55			SCC	Developer	

SCHEDULE 1 - INFRASTRUCTURE LINKED TO GROWTH OPTIONS (Cont'd)

OPTION		Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
		Community	Public Open Space	*0.50*	*0.50*			Mid-Suffolk DC	Developer	
			Option sub-totals	**28.05**	28.05	0.00	0.00			
10	**Clacton**	Education	210 place Primary School & Nursery	3.55	3.55			ECC	Developers	
		Health	2 Primary Care Centres	6.00	3.00	3.00		PCT	PCT/LIFT?/Developers	
			Option sub-totals	**9.55**	6.55	3.00	0.00			
11	**Shotley Peninsular**									
			Option sub-totals	**0.00**	0.00	0.00	0.00			
12	**Felixstowe**	Transport	Improvements to Trimley Station	*1.00*		*1.00*		SCC/SCDC	Developer	Phasing depends on FSR
		Transport	Initial support for public transport	*0.50*		*0.50*		SCC/IBC	Developer	
		Education	Primary School & Nursery	3.55		3.55		SCC	Developer	
		Education	Ssecondary School Extension	7.00		7.00		ECC/BSF?	SCC/Developer	
			Option sub-totals	**12.05**	0.00	12.05	0.00			
	Schedule Totals	Transport		**89.50**	68.00	17.00	4.50			
		Education		**88.60**	34.08	38.73	15.80			
		Health		**16.50**	7.50	7.50	1.50			

SCHEDULE 2 - INFRA-GATEWAY TRANSPORT INFRASTRUCTURE NOT LINKED DIRECTLY TO GROWTH OPTIONS

Area/Issue	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
Ipswich - Access	Ipswich Sustainable Transport Package	15.00	15.00			SCC	LTP	
	Expansion of Park & Ride Sites	*1.50*		*1.50*		SCC/IBC?	LTP	
	Area/Issue Sub-total	**16.50**	*15.00*	*1.50*	*0.00*			
Ipswich - East-West Movement	Wet Dock Crossing	60.00	60.00			SCC	LTP major	Needs to be evaluated - ITS
	East Bank Link Road	60.00	60.00			SCC/IBC	Deveoper	Needs to be evaluated - ITS
	Other traffic management measures	2.00		2.00		ECC	LTP	Needs to be evaluated - ITS
	Area/Issue Sub-total	**122.00**	120.00	2.00	0.00			
Colchester - Access	Colchester Integrated Urban Package	20.00	20.00			ECC	LTP major	
	Colchester Bus Station	10.00	10.00			ECC/CBC	Developer	
	A12/A134 Junction	20.00	20.00			ECC/HA/Dev	Developer	
	Cuckoo Farm P&R	4.70		4.70		ECC	Developer	
	A133 Corridor congestion and accessibility	13.80	13.80			ECC	LTP major	
	Stanway P&R	4.70	4.70			ECC	LTP major	
	Area/Issue Sub-total	**73.20**	68.50	4.70	0.00			

SCHEDULE 2 - INFRA-GATEWAY TRANSPORT INFRASTRUCTURE NOT LINKED DIRECTLY TO GROWTH OPTIONS (Cont'd)

Area/Issue	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
Movement in rest of Gateway	Colchester - Clacton Rail Improvements	10.00	10.00			ECC/DfT Rail/Dev	LTP/Developer	
	A120-A133 junction improvements	10.00		10.00		HA	HA TPI	
	A120 D2 Hare Green to Harwich	227.00		140.00	87.00	HA	HA TPI	Depends on Bathside Bay
	A133 west of Weeley	8.00		8.00				
	Marks Tey Station Interchange	*2.00*			*2.00*	ECC/DfT Rail	?	
	New Ferry landing facility at Felixstowe	*1.00*		*1.00*		?	Hutchison Ports	Depends on FSR
	Essex LTP2 delivering accessibility	7.88	7.88			ECC	LTP	
	Essex LTP2 - tackling congestion	20.41		20.41		ECC	LTP	
	Area/Issue Sub-total	**286.29**	17.88	179.41	89.00			
Schedule Total		**497.99**	221.38	187.61	89.00			

SCHEDULE 3 - REGIONAL TRANSPORT INFRASTRUCTURE IN THE GATEWAY

Area/Issue	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
A14 Corridor	Copdock Interchange Improvements Ph 1	4.00	4.00			HA	HA TPI	
	Enhanced Management of Orwell Bridge	5.00	5.00			HA	HA TPI	
	Copdock Interchange Ph 2	20.00			20.00	HA	HA TPI	
	New Bridge or Northern Bypass	21.00			21.00	HA	HA TPI	Cheapest option. For consideration towards end of period
	Felixstowe-Nuneaton Rail Improvements Ph 2	80.00		80.00		DfT Rail	Hutchison Ports	Depends on FSR
	Area/Issue Sub-total	**130.00**	9.00	80.00	41.00			
A12 Corridor	A12 Improvement Marks Tey -Ardleigh	58.00			58.00			
	A12 Improvement Ardleigh - Copdock	202.00			202.00			
	GE upgrade Shenfield-Colchester	754.00		377.00	377.00			
	Area/Issue Sub-total	**1,014.00**	0.00	377.00	637.00			
A120 Corridor	A120 D2 Braintree to A12	312.00			312.00	HA	HA TPI	Linked to development of Stansted
	Area/Issue Sub-total	**312.00**	0.00	0.00	312.00			
Schedule Total		**1,456.00**	9.00	457.00	990.00			

SCHEDULE 4 - NON-TRANSPORT INFRASTRUCTURE NOT/NOT YET LINKED TO GROWTH OPTIONS

Area/Issue	Category	Project	Total Cost (£m)	Cost Phasing (£m) 2006-2011	2011-2016	2016-2021	Authority Responsible	Funding Source	Notes
Ipswich	Education	New Secondary School Ipswich	17.00		17.00		SCC	SCC/BSF	
Ipswich/Suffolk	Health	Ipswich Hospital					Trust	PFI? No figure identified, but could be sustantial	
	Health	Primary Care Centre - Ipswich	2.50		2.50		PCT	PCT/LIFT?	
	Health	5 GP Practices - Ipswich/Suffolk	7.50	2.5	2.5	2.5	PCT	PCT/LIFT?	
Colchester/Essex	Health	Hospital - new building	126.00	126.00			Trust	PFI?	Not related to growth proposals
Gateway overall	Police	Additional Facilities	18.00	6.00	6.00	6.00	Police Authority	Police Authority/Developers	
	Fire Service	Additional Facilities	2.60		1.30	1.30	Fire Service	?	Based on RTP/ECC
	Community Facilities	45 Community Centres	56.00	18.00	19.00	19.00	Districts	Developers	Based on RTP/ECC
		5 Sport/Leisure Centres	28.00	9.00	9.00	10.00	Districts	Developers	Based on RTP/ECC
		Outdoor Sports - 108ha	24.00	8.00	8.00	8.00	Districts	Developers	Based on RTP/ECC
		Play Space - 17ha	21.00	7.00	7.00	7.00	Districts	Developers	Based on RTP/ECC
		4 Libraries	6.00	2.00	2.00	2.00	ECC/SCC		Based on RTP/ECC