

## Responses to Questions raised by the Inspector

in relation to

### Session dealing with Transportation/Infrastructure/Delivery including Planning Contributions /"Chelmsford Tomorrow" Partnerships

*Joint response from Chelmsford Borough Council, Countryside Properties, Essex County Council and the Highways Agency*

#### **Viability/Feasibility of New Rail Station**

1. Paragraph 2.5 of the "7 party SCG" states that the land required for the proposed rail station is "controlled" by Network Rail, the Borough Council and Countryside Properties. Since the prospective development value of the new neighbourhood will be crucial to the delivery of the new rail station and associated infrastructure the Inspector intends to explore the basis on which it is confidently anticipated that the new station and other infrastructure can be funded from the development.

*The Company (Countryside Properties) has a lengthy and extensive track record in the delivery of large scale new neighbourhood projects and has, since the mid 1980s, been promoting new neighbourhood expansion at North East Chelmsford. Since that time the Company has examined in detail with its highly experienced project team the procurement of major road, rail and other infrastructure for this project.*

*Over time, the master plan approach has been refined and financial appraisals have been undertaken on an iterative, but robust, basis with advice from the Company's consultant team. A separate costs estimate table is attached which demonstrates that infrastructure costs have been appraised and are affordable in the context of the development as a whole*

*The railway station is regarded by Chelmsford Borough Council as complementary infrastructure, and is a stated aim of the Council. It is referred to in Policy CP4 of the draft Core Strategy and "will strengthen and support the sustainability of the Council's Spatial Strategy" (source: Topic Paper 5, Appendix 2).*

*The rail station and associated track works have been entered on to the Department of Transport, Rail Single List of Enhancements and has been the subject of a Basic Services Agreement with Network Rail. This provided a legal framework for the procurement of Network Rail's technical input in assessing engineering, business and "strategic fit" matters and reflecting rail industry practices. The station and track works have been examined in detail by the DfT who confirm support for this facility. Detailed design of the works will be addressed in due course.*

*Highway engineering solutions have been designed in the context of phased implementation of works that do not prejudice the completion of a bypass in due course.*

*Other forms of service infrastructure and community infrastructure anticipated by Core Strategy Policies CP4 and CP18 have been accommodated within the Company's costs estimate. The costs estimate demonstrates with confidence that, on the basis of 3,500 – 4,000 new homes in North East Chelmsford's growth allocation, the new station and other infrastructure can be funded from the development.*

2. The Inspector will ask whether Countryside Properties own the land required for the new neighbourhood to the NE of Chelmsford or merely hold an option. In other words, are the costs of the land known at this point in time or are they still to be negotiated depending on the amount of development and whether planning permission is granted?

*The submitted Core Strategy Key Diagram, following the advice in PPS12, illustrates the general location for the future development of the NE Chelmsford Neighbourhood together with the linkages with other parts of the Borough. The symbol for the new neighbourhood is clearly identified between Essex Regiment Way and the proposed future employment area, the A130 and the existing urban area of Springfield/Beaulieu Park, the Boreham Interchange and proposed new railway station and to the south of the former CBC preferred option for the North East Chelmsford By-pass. All these boundaries are easily identifiable or defined either as existing or proposed and consequently, in contrast to the proposed neighbourhood at NW Chelmsford, the area of the proposed NE neighbourhood is tangible and relatively well defined. This is confirmed by the plans showing the three options in the North Chelmsford Area Action Plan – Issues and Options Consultation Document. This presents three options for the NW Chelmsford/Broomfield area and only one option for the NE Chelmsford/Springfield area. The latter is described in the document as ‘development in the Springfield area as a continuous crescent of development around New Hall’ (para 9.3(i)).*

*The majority of the area indicated is owned or controlled by Countryside Properties, i.e. c300ha, with the exception of the following areas:*

- i) land owned by CBC to the south of New Hall and east of the Avenue;*
- ii) land to the north of the pylons forming ‘Area B’ in CBC’s document ‘The Potential Housing Capacity of land in the North Chelmsford Area Action Plan area (BD/CFD/119);*
- iii) the existing enclave of development in the vicinity of Bulls Lodge and two small properties in General’s Lane;*
- iv) the former farmstead comprising the Old Lodge group of buildings and the Sheiling;*
- v) a small field to the west of the site in proximity to Essex Regiment Way.*

*None of these areas, other than the CBC land, is essential or necessary to develop the proposals shown on the current submitted CP master plan. The net developable area for housing amounts to c88ha and c13ha is indicated for potential employment uses. The balance of c200ha is required for other neighbourhood facilities as summarised below.*

*Consequently CP own or control sufficient land to provide the key access points at Essex Regiment Way and the Boreham Interchange and deliver a comprehensive new neighbourhood comprising 3,500 – 4,000 new homes and associated community and physical infrastructure, open space and structural landscaping including major enhancement to the setting of New Hall by creating a new parkland to the south and removal of the pylons to the north.*

*Approximately one third of the land is owned by the Company, with the balance controlled under legal agreements to purchase subject to planning permission. The purchase price for the land will be derived from a formula set out within the legal agreements on an open market value basis, depending*

*inter alia on master plan and s.106 Agreement considerations. It follows that the full costs of land are not known at this time. However the residual amount is sufficient to cover the forecasted land purchase. Having examined matters the Company is satisfied that the range of £277m - £305 million included within its costs estimate table provides ample comfort that land and other costs will be covered.*

- 3. While Appendix 1 of BD/CFD/075vi and Appendix 2 of Topic Paper 5 – Infrastructure gives the funding sources, phasing and priorities, the questions remains as to how much will be expected from each source, particularly where 2 streams are anticipated and how much would fall on each party/source.**

*Appendix 2 Topic Paper 5 identifies infrastructure categories and lists a number of items considered germane to the overall Local Development Framework.*

*In relation to New Neighbourhoods there is itemised pre-requisite infrastructure in the form of Boreham Interchange Improvements – based on satisfactory access into the development of the new NE Neighbourhood; North East Neighbourhood Access Road - (Phase 1) of the Chelmsford NE Bypass); High Quality Passenger Transport; secondary and primary schools.*

*As explained above, the Company has carried out substantial work on the procurement of this infrastructure. Based on the summary costs estimate as attached and in the context of the answer provided above to Question 1, the Company considers that this pre-requisite infrastructure (or contributions thereto) can be delivered as part of the anticipated development.*

*Other forms of service infrastructure and community infrastructure anticipated by Core Strategy Policies CP4 and CP18 have been accommodated within the Company's costs estimate summary (attached) and this demonstrates that the new station and other infrastructure can be funded from a residential development of the scale envisaged in the Core Strategy excluding any business park or other employment element.*

- 4. The Inspector will ask for a break down of the estimated costs. He expects this will already have been undertaken in order for the prospective developer to be confident that sufficient surplus will be available to meet the £50m estimated costs of the new station. He will seek to get an idea of the estimated cost of land, buildings and based on what number of dwellings. He will also wish to know whether the station would only be viable with the inclusion of a business park as well as a new neighbourhood. If yes, what area of land and floor space of buildings is envisaged?**

*The cost of the new station is incorporated within the Company's costs estimate. This provides the estimated residual for land purchase, buildings and infrastructure and also sets out the estimated development capacity. Other forms of service infrastructure and community infrastructure anticipated by Core Strategy Policies CP4 and CP18 have been accommodated within the Company's costs estimate summary (attached) and this clearly demonstrates that the new station and other infrastructure can be funded*

from a residential development, excluding any business park or other employment element.

*There are commercial confidentiality issues with releasing details of the exact costings in the Countryside Properties business case, the cost of the rail station, before inclusion of the appropriate Network Rail standard contingency is £41m. This is the same cost as that estimated by Atkins Rail (Background document BD/CFD/053) for Chelmsford Borough Council, before adding on an allowance for optimism bias. Chapter 4 of the Atkins report deals with cost estimates and includes a breakdown into the various cost elements..*

- 5. Supplementary to that, what contributions would be expected from the development towards affordable housing and community infrastructure (schools, roads, leisure, sport, shops, health etc)? The Inspector realises that much of this may need to be negotiated, but he feels he needs to be given some basic information on these aspects in order to judge the scheme's viability and therefore the soundness of the plan.**

*It is assumed within the Company's costs estimate that matters outlined in Core Strategy Policy CP4 and CP18 can be fully addressed. Further negotiations will be required in order to determine the full content of a "Section 106 Package".*

*In relation to affordable housing, it is anticipated that serviced land for 35% of the total number of dwellings would be provided*

*Shops and other commercial buildings will be provided on a "commercial" basis, with no developer cost being assumed.*

*Based on CP's development track record and due diligence in examining development costs, the Company is confident in the scheme's viability and both the Borough Council and the Inspector should take similar confidence.*

- 6. Also, the Inspector wishes to be provided with a summary of the key components and the criteria/assumptions used by Mayer Brown in presenting the business case for the new station to the Department for Transport (letter of 1 August) with a copy for the Enquiry library?**

*The Business Case was initially submitted to the DfT, following prior discussions with One Railway and Network Rail and the DfT. Following its submission, various sensitivity tests were undertaken leading up to the DfT confirming (after a full audit) their acceptance of the Business Case.*

*The financial model for the station relies on commercially sensitive information and has been the subject of a Confidentiality Agreement with One Railway and for this reason the full content of the Business Case remains a confidential document.*

*However, the key elements of the Business Case can be summarised as follows;*

- *The Overall Content of the Business Case*
- *Structure and Assumptions behind the Financial Model*
- *Economic Case for the Proposed Station*
- *The Overall Conclusions derived from the Business Case*

**The Overall Content of the Business Case**

*The objective of the Business Case has been to satisfy the Department for Transport and Network Rail that:*

- The proposed station could be implemented without an ongoing financial liability on the public purse.*
- The proposed station is consistent with the wider objectives of Central Government.*

*The Business Case has demonstrated that a full and robust appraisal was being undertaken with a number of benefits.*

*The project provides an additional net revenue benefit (after allowing for revenue loss as a result of an additional stop) in excess of operating costs which themselves are based on realistic forecasts. This surplus is derived from ticket sales (“Farebox”) only.*

*Users of the station will obtain a benefit in terms of improved station access and reduced overall journey time.*

*Users of Chelmsford Station will obtain a benefit in terms of reduced congestion within the station.*

*The provision of the passing loops will improve performance and operational flexibility on a busy section of two track railway.*

*There will be reduced traffic congestion within Chelmsford as a result of the transfer of trips from Chelmsford to the proposed new station, leading to decongestion and road safety benefits.*

*There will be reduced traffic congestion on the A12 in the peak direction south of the Boreham Interchange as a result of the provision of a railway station, easily accessible and operating on a parallel corridor to the A12, leading to decongestion and road safety benefits.*

*Requirements for future capital expenditure at Chelmsford Station to relieve congestion will be reduced as a result of the abstraction of trips to the new station.*

*The project includes the replacement of a significant amount of existing infrastructure and consequently there will be some future maintenance savings for Network Rail.*

### **The Structure and Assumptions behind the financial model**

*The financial modelling was undertaken to answer two questions, namely:*

*Question 1/ What would be the overall revenue implications be on the Great Eastern franchise from the introduction of the new railway station, in terms of (i) the abstraction of rail journeys from other stations and (ii) the generation of rail journeys as a result of the provision of a new station more accessible than current stations.*

*Question 2/ What would be the implications in terms of loss of revenue as a result of the introduction of the new station and consequently a longer rail journey for some journeys from east of Chelmsford. (i.e passengers travelling from Colchester who may have an additional stop on their journey to London).*

*In respect of Question 1 a financial model was developed which replicated the current usage of stations between Ingatestone and Ipswich including the Braintree Branch Line; growth scenarios were prepared which considered the time period up to 2021 allowing for housing growth as projected in the RSS. For the purpose of the proposed new neighbourhood, up to 4000 units were tested with a nominal allowance for commercial development.*

*The station has been tested on the basis of 6 trains per hour serving the station in the peak period, which is an assumption considered to be valid by Network Rail and One.*

*The model also demonstrated that there would be a generation of rail trips primarily from the Springfield and Boreham areas as a result of the new station providing a more accessible opportunity to travel by rail than is currently available.*

*In respect of Question 2, the introduction of an additional stop is projected by standard rail industry practice to lead to a loss of some journeys as a result of longer journey times.*

*This has been discussed with the rail industry who consider that a new timetable would be introduced to minimise this effect, for example services that currently commence or terminate at Chelmsford Station would commence or terminate from the new station.*

*A rigorous assessment was undertaken using the rail industry MOIRA model (this allows for the revenue implications of changes in service patterns to be explored) to test the implications of 6 trains per hour stopping at the new station, based on a draft timetable agreed with One Railway.*

*Based on the audit of the financial appraisal the DfT and Network Rail were satisfied that the introduction of the proposed station would not have an ongoing liability on the public purse, i.e. the additional income is more than the operating cost. The revenue appraisal is considered to be realistic in relation to passenger growth, revenue from housing and commercial development.*

### **The Economic Case for the Proposed Station**

*The Business Case submitted to the DfT and Network Rail, in addition to considering the financial case for the proposed station, also considers the wider economic case, including reference to:*

- *Capital Cost of the Station and Passing Loops*
- *Consumer effect during construction*
- *Lease Cost of Additional rolling stock*
- *Operating Cost of the Station*
- *Timetable implications for non station users (passengers from east of Chelmsford)*
- *Loss of Revenue from timetable changes*
- *Additional Revenue from the proposed station*
- *Highways Decongestion benefits for station users*

*For the purpose of demonstrating a rigorous economic case for the proposed station, all tests excluded:*

- *Highways Decongestion Benefits for other road users in Chelmsford/A12 South of the Boreham Interchange*
- *Reduced crowding at Chelmsford Station*
- *Impacts of Travel Plan measures in reducing modal share to Beaulieu Park Station,*
- *Cost savings in other expenditure which would be required to accommodate additional housing*
- *Changes in indirect taxation due to change in veh kms*

*The DfT and Network Rail were satisfied that the economic case for the station is proven. Indeed the letter from the DfT stated that 'it seems the new station will offer benefits to the rail industry and society'. (a copy of the letter is contained in the Statement of Common Ground on Proposed Rail Station at North East Chelmsford – August 2007)*

### **Conclusions in respect of the business case**

*A thorough and realistic appraisal of the business case for the station has been undertaken. This has shown that the scheme has a net operating surplus and a positive NPV. Based on the audit of the financial appraisal the DfT and Network Rail were satisfied that the introduction of the proposed station would not have an ongoing liability on the public purse. In addition, there are wider economic benefits indicated above.*

*In conclusion, the Business Case satisfied all DfT criteria for the provision of new railway stations. The next key stage is for detailed design work to be progressed.*

- 7. The Inspector will wish to explore the view expressed in the 4<sup>th</sup> paragraph of the letter of 2 February 2007 from One, the Train Operating Company, concerning the impact of a new station on the above line. In particular, could a 1% loss of passengers on the Braintree line harm its viability? What does it mean in passenger number terms?**

*The revenue model projects the abstraction of trips on the Braintree Branch line as a result of the introduction of the proposed new station. The central test considered the introduction of the proposed station with improvements to the Boreham Interchange and a relief road for White Hart Lane. A sensitivity test considered the abstraction of trips with a full Chelmsford North Eastern Bypass being in place and consequently a further reduction in car access times to the proposed station from the Braintree area.*

*The Business Case audited by the DfT and Network Rail has shown that the proposed station can be introduced and satisfy the rail industry criteria in terms of no ongoing liability on the public purse without any loss or alteration to service on the Braintree Branch. Indeed the provision of the passing loops provides for a benefit for the Braintree Branch in terms of improved reliability of the service which has not been quantified.*

*In its letter of the 3 August 2007, Network Rail confirm that the proposed station is consistent and referenced in the Route Utilisation Strategy (RUS). The RUS, which sets out the long term vision of the Rail Industry, includes the current service on the Braintree Branch and it is therefore clear that the introduction of the proposed station is consistent with maintaining the current service provision on the Braintree Branch line, in accordance with the RUS.*

*Consequently, there is no reason to believe from the discussions with the rail industry that there would be any impact on the service on the Braintree Branch Line.*

*The letter from One confirms that approximately 1% of the users of the proposed new station would for the central test be abstracted from the Braintree Branch.*

*There are a number of reasons why this level of abstraction represents a rigorous assessment. For example, they do not allow for the passenger benefits from it being easier to obtain a seat when catching the service from Braintree, and real long term increases in motoring costs.*

*In addition, all parties have a vested interest in minimising the amount of rail heading, since it reduces fare income for the rail industry and increases car journeys and it would be anticipated that a future planning application would include measures such as controls on parking in the vicinity of the station and fiscal controls on parking charges to ensure that levels of abstraction are not increased.*

*In broad terms the reduction in passengers represents for the test with the full Chelmsford North Eastern Bypass in place to be no more than 120 journeys per day by the end of the LDF period, not allowing for the constraints on car parking which will clearly be in place.*

**8. Does the Essex County Council have a view about the impact that a new station would have on the rail service to Braintree?**

*Essex County Council has reviewed all documentation made available relating to the proposed station at NE Chelmsford. This has enabled the authority to gain an understanding of the implications of a new rail station at North East Chelmsford on the Braintree Branch Line.*

*Based on the assumptions and outputs that have been presented to Essex County Council, the impact on the branch line could result in an overall 1% loss of patronage when factored against the background increased in rail trips across the network. Essex County Council does not consider that this reduction will affect the viability of the branch line.*

*Furthermore, the County Council continues to support the Branch line improvements through regional funding sources and as part of the Braintree District Council LDF process, as an important sustainable travel improvement.*

**Chelmsford LDF – Examination of the Core Strategy DPD**

**Session dealing with Transportation / Infrastructure / Delivery including Planning Contributions / “Chelmsford Tomorrow” Partnerships**

**Response to Questions 4 and 5**

The figures below relate to scenarios of 3500 and 4,000 dwellings respectively (with 35 % Affordable Housing), in North East Chelmsford.  
Average Density 40 – 45 dwellings per hectare.

Approximate Gross Area: 337 hectares  
Approximate Net Area: 88 hectares <sup>1</sup>

Gross Receipts	£ 939 - £1,008m
Estimated Construction Costs <sup>2</sup>	£ 402 - £ 432m
Estimated Infrastructure and Planning Gain Package Including <sup>3</sup> :	£ 165 - £ 171m

*New Railway Station and track works*  
*Construction of the first phase of the Relief Road / NE Neighbourhood Access Road<sup>4</sup>*  
*Contribution towards Boreham Interchange improvements*  
*Traffic Calming to White Hart Lane*  
*Improved Public Transport Links with town centre, including Bus Priority measures*  
*Green Travel measures*  
*Neighbourhood / Community Facilities including Community Hall*  
*“Early Years”, Primary and Secondary Education Facilities*  
*Provision and laying out of Strategic Open Space including Sports and Leisure facilities*  
*Enhanced Parkland setting for New Hall*

Estimated Stamp Duty Land Tax, Design Fees, Professional Fees and Sales and Marketing Costs £ 95 - £ 100m

Shops, Medical Facilities etc. may also contribute on a commercial basis.

Residual Remaining for Land Purchase, Developers Profit and Finance Costs  
£ 277 - £ 305m

**Notes:**

The above figures are based upon current costs and values following advice from Gleeds, Andrew Martin Associates, Mayer Brown, Scott Wilson, Network Rail, NM Rothschild, Ashursts, Gardner Stewart, EFM and Dalton Warner Davis.

<sup>1</sup> Excludes Business Park which would occupy an additional 13 hectares.

<sup>2</sup> Based upon today’s costs. Includes house building construction costs, estate roads, ancillary landscaping, and housing utilities.

<sup>3</sup> . Includes strategic road infrastructure, strategic foul and surface water drainage, potable water supply, gas and electricity supply to housing areas, strategic landscaping and the undergrounding of the electricity pylons north of New Hall.

<sup>4</sup> Includes full bridge works across railway line.

**Arising from his reading of the SCG on Strategic Transport Matters the Inspector will:**

- 1. Ask what is meant by “virtual sign off” in paragraph 3.1(a)? Does it mean that more information is required to secure “a complete sign off”? If yes, what more remains to be provided?**

*“Virtual sign off” means approval in principle.*

*There will always be caveats, for example, any scheme reaching this stage is subject to a Stage 1 Road Safety Audit before it proceeds to detailed design and the Stage 1 RSA always results in a number of minor amendments. But the checks done give the Highways Agency confidence that these should be minor.*

*There will also inevitably be minor amendments to the design, to accommodate variations in the design flows as the specific land-use mix of each development site is finalised. Again the checks done give us confidence that these should also be minor.*

- 2. Wish to explore what would be involved in “access control” in paragraph 3.1(c).**

*This intervention would aim to control vehicular activity at significant points in the network prior to accessing the trunk road network during peak demand and under defined thresholds. It is envisaged that it would be achieved through a central control system monitoring local speeds and flows, and where necessary, a simulated barrier (probably traffic signals) would come into effect to manage the flows from the local network.*

- 3. Ask what the inputs were on the modelling programme mentioned in paragraph f – Transport Modelling and to be informed of its outcome. He will expect the outcome to be summarised.**

*A model of the highway network in Chelmsford has been developed using Paramics software. In 2006/07 substantial amounts of new traffic data was collected so that the model could be updated to a new base year of 2006 giving the most accurate picture possible to inform the LDF process. The model update from 2001 to 2006 was undertaken in 2007, with the calibrated and validation of the model completed in July 2007.*

*The model uses Paramics micro-simulation software to model highway traffic in and around Chelmsford. Micro-simulation models each individual vehicle and takes account of the different vehicle characteristics that occur between vehicle types.*

*The updated Paramics model has been used to forecast the effects of the Chelmsford Core Strategy on the highway network. The tests include all of the additional housing, employment and retail sites together with the proposed transport infrastructure improvements to support the growth which are detailed in the Core Strategy..*

*The results of this work are available in a summary report which has been submitted to the enquiry library (BD/CFD/135).*

*As part of this modelling work the County Council has undertaken to support the Core Strategy and its accompanying documents, scenarios have been reviewed to look in detail at how greenfield development in NE Chelmsford can be delivered in a phased way early on in the plan period if required, prior to the delivery of more major infrastructure.*

*The assumptions below were modelled following review by officers of both realistic timescales for the delivery of infrastructure and the housing trajectories supplied by the Borough Council.*

- *Base Year 2012 – current network (No improvements / No development)*
- *Base Year – 500 houses / No Boreham Improvements/ Connected to existing network*
- *Base Year – As above but with P&R on or prior to new development connection to existing network*
- *Base Year – As above with 1,000 houses increasing by 500 houses until the network fails and Boreham interchange improvements are required*
- *Base Year – 4,000 houses / Boreham improvements / Connection to existing network but no through road between Essex Reg Way & Boreham / No Option D bypass / P&R on Essex Reg Way*

*The findings are based on peak period runs of the 2001 Chelmsford Area PARAMICS Model, supplemented by actual turning counts in the area and previously run ARCADY assessments of the Boreham Interchange (conducted as part of the Chelmsford NE Study BD /ESX/001)*

*The key findings from this work revealed the following:*

- Certain parts of the Boreham Interchange and the A130 have little spare capacity and cannot accommodate increases in traffic without occurring additional delay.*
- However the bulk of traffic from any early releases of housing in this area of Chelmsford is expected to travel towards the centre of the town.*
- This provides a clear opportunity to offset additional development traffic with more sustainable modes of travel such as Park & Ride or high quality passenger transport provision. (BD/ESX/002 & 003)*
- Based on these assumptions, modelling has indicated that developments beyond 500 dwellings in this area of Chelmsford could be mitigated by the introduction of the measures suggested above.*
- Regardless of the non car package for the new development, improvements would be required to the Boreham Interchange before numbers could exceed 1000 units.*
- Further runs indicate that up to 4,000 units could be accommodated through the provision of improvements to the Interchange and the provision of a housing access road.*
- Provision of a full Route D bypass as proposed by the Highway Authority (BD/ESX/001) and listed in the Regional Transport Strategy, is required to deliver wider benefits to both the town of Chelmsford and the wider strategic transport network.*
- This could be linked to the delivery of capacity restrictions to WHL allowing it to be downgraded in status.*