

## North Essex Section 1 Local Plan Examination

### Viability Technical Seminar

#### Points arising from NEGC evidence

The Inspector has asked me to contact you to seek more information on a point that arose at the Viability Technical Seminar held on Tuesday 21 January.

The Avison Young paper *Local Plan Examination - Viability Evidence on behalf of North Essex Garden Communities* contains a table of infrastructure costs for each of the GCs on page 4, taken directly from the Gleeds *Infrastructure Order of Costs Estimates* [EB/087]. Paragraph 19 above the table on page 4 says that the figures exclude optimism bias and that Grant Thornton has made allowance for optimism bias in the modelling.

Turning to the Grant Thornton Model Outputs at Appendix II to the AY paper, this explains that the total infrastructure costs for each of the three GCs include optimism bias and additions for professional fees (10%) and risk contingency (10%). Accordingly they are different, as one would expect, from the figures in the table on page 4 of the main paper. The differences are as follows:

<b>Total infrastructure costs</b>	<b>West of Braintree</b>	<b>Colchester Braintree Borders</b>	<b>Tendring Colchester Borders</b>
<b>Table, p4 of AY main paper</b>	£665M	£982M	£322M
<b>Grant Thornton Model Outputs</b>	£841.9M	£1,221.2M	£389.9M

A table is provided setting out the approach to optimism bias [EXD/062 (1/5), Appendix A], showing 44% optimism bias added to certain infrastructure items. However, it is not fully clear to what extent the optimism bias adjustment accounts for the uplift between the total infrastructure costs in Table 4 and in the Grant Thornton Model Outputs, and to what extent the uplift is accounted for by the additions for 10% professional fees and 10% risk contingency to all infrastructure items. Moreover, it appears from the notes in EXD/062(1/5) that the 10% risk contingency is not applied to items that are subject to the 44% optimism bias addition.

So that the position is fully clear, please could a table be provided setting out, for each GC, the steps involved in getting from the infrastructure total costs in Table 4 of the AY paper to the infrastructure totals in the Grant Thornton Model Outputs, ie:

- i. What is (a) the base cost, and (b) the value of the 44% optimism bias addition for each of the items listed in EXD/062 (1/5), Appendix A?
- ii. What is the value of the 10% risk contingency on total infrastructure costs at each GC, excluding the items at (i) to avoid double-counting? (Please also show the total figure against which the 10% contingency was calculated.)
- iii. What is the value of the 10% professional fees addition to total infrastructure costs at each GC? (Please also show the total figure against which the 10% professional fees addition was calculated.)
- iv. (i), (ii) and (iii) together should fully account for the differences between the two sets of infrastructure total costs.

NEGC clarification responses to the questions are set out below.

**i. What is (a) the base cost, and (b) the value of the 44% optimism bias addition for each of the items listed in EXD/062 (1/5), Appendix A?**

Where an Optimism Bias of 44% is applied, it is calculated as a multiple of 1.44/1.1 (i.e. 30.9%). An overall 10% risk contingency is applied to all costs. Therefore, the total Optimism Bias + risk contingency is never more than 44%.

**West of Braintree**

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
Additional On Site Rqmnts - Water Treatment Plant	£7,700,000	£2,380,000	£10,080,000
Additional infrastructure to form an all-movement junction between the A120 and B1417 and associated widening of the bridge structure. (WoB2a)	£7,000,000	£2,163,636	£9,163,636
All-vehicle off-slip and associated junction improvement at Stebbing Green	£850,000	£262,727	£1,112,727
Bus only eastbound off-slip and eastbound on-slips to above junction (WoB15)	£1,620,000	£500,727	£2,120,727
The addition of a full junction upgrade connecting the main site access with the above upgrades to the A120/B1417 junction	£10,200,000	£3,152,727	£13,352,727
The addition of a new signal control or roundabout junction providing direct access from the B1256 junction through to the site (WoB1c)	£1,820,000	£562,545	£2,382,545
Upgrades to improve safety and operation at the B1417 / B1256 and B1256 / Blake End junction to form a new roundabout or signal controlled junction (WoB1a)	£2,550,000	£788,182	£3,338,182
Utilise existing access arrangements from the A120 junction with the addition of a new on-slip (WoB1b)	£3,026,000	£935,309	£3,961,309
Contribution to provisions of off site RTS network (WoB6) Ph1	£23,407,320	£7,234,990	£30,642,310
Contribution to provisions of off site RTS network (WoB6) Ph2	£11,100,180	£3,430,965	£14,531,145
Contribution to provisions of off site RTS network (WoB6) Ph3	£10,002,360	£3,091,639	£13,093,999
Contribution to provisions of off site RTS network (WoB6) Ph4	£5,001,180	£1,545,819	£6,546,999
Contribution to provisions of off site RTS network (WoB6) Ph5	£10,002,360	£3,091,639	£13,093,999
Contribution to provisions of off site RTS network (WoB6) Ph6	£4,686,600	£1,448,585	£6,135,185

**Colchester Braintree Borders**

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
Additional bridges overrailway line (2 vehicular & 3 pedestrian/cycle) (not explicit in MAS, now CBB2)	£30,200,000	£9,334,545	£39,534,545
Marks Tey Station and junction package & Stane St reduction (PR1 & PR 2- in MAS, now CBB1)	£25,800,000	£7,974,545	£33,774,545
Contribution to provisions of off site RTS network (CBB8)	£32,400,000	£10,014,545	£42,414,545

**Tendring Colchester Borders**

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
Interim highways improvements measures (including improvements to Greenstead roundabout and A133 Hare Green roundabout) (TCB3)	£2,250,000	£695,455	£2,945,455

Note: the optimism bias adjustment for all of the above tables excludes 10% professional fees and 10% risk contingency that are both added on below the initial sub total line (see below)

**ii. What is the value of the 10% risk contingency on total infrastructure costs at each GC, excluding the items at (i) to avoid double-**

counting? (Please also show the total figure against which the 10% contingency was calculated.)

- iii. What is the value of the 10% professional fees addition to total infrastructure costs at each GC? (Please also show the total figure against which the 10% professional fees addition was calculated.)

### West of Braintree

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
	£665,223,180	£30,589,491	£695,812,671
Add 10% Professional Fees to all costs			£69,581,267
Sub-Total			£765,393,938
Add 10% Project Risk			£76,539,394
<b>TOTAL COST</b>			<b>£841,933,332</b>

### Colchester Braintree Borders

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
	£981,902,801	£27,323,636	£1,009,226,437
Add 10% Professional Fees to all costs			£100,922,644
Sub-Total			£1,110,149,081
Add 10% Project Risk			£111,014,908
<b>TOTAL COST</b>			<b>£1,221,163,989</b>

### Tendring Colchester Borders

	GT Base Cost	Adjustment: 1.44/1.1. This adds 44% optimum bias, but omits the 10% risk which is then applied wholesale below the line.	GT Infra Inputs
	£321,536,180	£695,455	£322,231,635
Add 10% Professional Fees to all costs			£32,223,163
Sub-Total			£354,454,798
Add 10% Project Risk			£35,445,480
<b>TOTAL COST</b>			<b>£389,900,278</b>

Note: the items at (i) have not been excluded as the optimism bias adjustment excluded the 10% professional fees and 10% risk contingency as set out above

- iv. (i), (ii) and (iii) together should fully account for the differences between the two sets of infrastructure total costs.

The analysis set out above provides an explanation of the differences between the infrastructure costs as set out in the table below.

<b>Total infrastructure costs</b>	<b>West of Braintree</b>	<b>Colchester Braintree Borders</b>	<b>Tending Colchester Borders</b>
<b>Table, p4 of AY main paper</b>	£665M	£982M	£322M
<b>Grant Thornton Model Outputs</b>	£841.9M	£1,221.2M	£389.9M

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