



Hyas

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

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This Viability Assessment Update Technical Appendix provides further information relating to certain assumptions as set out in the accompanying Viability Assessment Update Main Report.

1. Residential Build Cost Assumptions

Build Cost Assumptions £ per sqm

Data Description: Rate per m2 gross internal floor area for the building Cost including prelims
Data Source: Building Cost Information Service (BCIS)
Data Date: December 2018 (last updated 01 September 2018)
Category: Residential New Build

Rebased to Colchester	Mean	Lowest	Lower quartile	Median	Upper quartile	Highest
810. Housing Mixed developments	£1,254	£833	£1,087	£1,222	£1,368	£2,850
816. Flats (apartments) Generally	£1,461	£709	£1,216	£1,394	£1,656	£4,967

Rebased to Tendring	Mean	Lowest	Lower quartile	Median	Upper quartile	Highest
810. Housing Mixed developments	£1,304	£658	£1,130	£1,270	£1,442	£2,982
816. Flats (apartments) Generally	£1,518	£737	£1,264	£1,449	£1,721	£5,162

Rebased to Braintree	Mean	Lowest	Lower quartile	Median	Upper quartile	Highest
810. Housing Mixed developments	£1,328	£671	£1,151	£1,294	£1,489	£3,018
816. Flats (apartments) Generally	£1,547	£751	£1,288	£1,476	£1,753	£5,259

**Blended Rates per Garden Community
(based on median values)**

810. Housing Mixed developments
816. Flats (apartments) Generally

West of Braintree	Colchester Braintree Borders	Tendring Colchester Borders
£1,294	£1,258	£1,246
£1,476	£1,435	£1,422

Blended Build cost based on typology mix

Houses (general)	80%
Flats (apartments)	20%

West of Braintree	Colchester Braintree Borders	Tendring Colchester Borders
£1,330	£1,293	£1,281

Blended Build cost gross including externals

Build cost inclusive of externals	10%
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West of Braintree	Colchester Braintree Borders	Tendring Colchester Borders
£1,463	£1,423	£1,409

Blended build cost utilised within analysis.

Externals added separately

2. House Price Index Data

Data Description: House Price Index (Average price annually on 1st December each year)
Data Source: ONS

Date	Braintree	Colchester	Tendring
01/12/1998	£80,929	£74,678	£68,394
01/12/1999	£92,191	£86,362	£79,429
01/12/2000	£111,205	£102,176	£92,173
01/12/2001	£132,242	£121,135	£112,429
01/12/2002	£168,520	£152,197	£138,070
01/12/2003	£183,922	£164,348	£161,679
01/12/2004	£211,556	£187,982	£180,514
01/12/2005	£220,601	£200,948	£193,683
01/12/2006	£231,288	£212,495	£200,655
01/12/2007	£249,501	£220,183	£216,911
01/12/2008	£225,360	£170,363	£180,072
01/12/2009	£213,843	£186,077	£178,091
01/12/2010	£217,702	£191,725	£187,580
01/12/2011	£220,980	£195,816	£181,708
01/12/2012	£228,955	£200,574	£183,238
01/12/2013	£237,885	£209,091	£190,002
01/12/2014	£256,584	£231,033	£202,414
01/12/2015	£287,696	£253,843	£219,383
01/12/2016	£326,264	£285,453	£247,732
01/12/2017	£343,674	£303,498	£267,430
01/12/2018	£352,140	£307,571	£280,576

Average Change	Braintree	Colchester	Tendring
Over 2 Years	+3.89%	+3.80%	+6.42%
Over 5 Years	+8.16%	+8.02%	+8.11%
Over 10 Years	+4.56%	+6.09%	+4.53%
Over 20 Years	+7.63%	+7.33%	+7.31%

(average annual price change within period)

3. Cost Inflation Indices

Nominal Construction Inflation Trends

Data Description: Construction Cost Indices
Source: RICS.BCIS
Data Range General Civil Engineering 2005-2022
General Building Costs 1985-2023

Long term average	2005	2022	%pa
General Civil Engineering Costs ¹	100.0	180.5	3.5%
Long term average	1985	2022	%pa
General Building Costs ²	100.0	405.8	3.9%

Sources

1. RICS, June 2018: *BCIS General Civil Engineering Cost Index #1191 for June*
2. RICS, June 2018: *BCIS General Building Cost Index #1111 for June*

4. West of Braintree Garden Community: Assumptions & Cashflows

WORKSHEET 1: LANDUSE ASSUMPTIONS

West of Braintree

Total Site		
Total Gross Site Area	685	hectares

Split By Use		
Residential	46.7%	320 ha
Open Space (strategic, formal & informal)	34.9%	239 ha
Infrastructure (incl roads, utilities, community facilities)	9.5%	65 ha
Employment B1 /Offices	3.1%	21 ha
Employment B2 B8 / Industrial	3.2%	22 ha
Mixed Use	2.6%	18 ha
Check	100.0%	685 ha

Total Residential Units		
Average dwellings per hectare	39.1	dph
Total Dwelling Units	12,500	dwellings
Residential floorspace average per hectare	3,651	sqm / ha
Residential floorspace average per acre	15,893	sq ft / acre

Total Population		
Average Household size	2.4	per unit
Total Population	30,000	residents

Housing Tenure			
Overall Percentage Private Units		67.2%	
Of which:	Private Type 1	100%	private sale
	Private Type 2		
	Private Type 3		

Overall Percentage Affordable Units		32.8%	(9,000@30%, 3,500@40%)
Of which:	AH Type 1	60%	Affordable Rent
	AH Type 2	40%	Intermediate
	AH Type 3		

Commercial Floorspace				
Use	Total Ha	Plot Density	Storeys	Sqm (gross)
Employment B1 /Offices	21	40%	2	169,880
Employment B2 B8 / Industrial	22	40%	1	87,680
Mixed Use	18	40%	1	71,240
Total all commercial	61			328,800

WORKSHEET 2: SCHEME WIDE COST ASSUMPTIONS

West of Braintree

SCHEME WIDE ENABLING WORKS

Physical Costs: Site Preparation & Enabling Costs	Unit/cost	Total	Type
- Based upon generic cost per residential unit	£18,434	£230.4 m	Enabling
Sub Total		£230.4 m	

SCHEME WIDE COMMUNITY INFRASTRUCTURE

On Site: Core Social Infrastructure	Cost per unit	Total	Type
Education	£8,474	£105.9 m	Obligation
Community, Health & Well Being	£1,861	£23.3 m	Obligation
Open Space	£2,688	£33.6 m	Obligation
Environmental / sustainability / waste	£500	£6.3 m	Obligation
Sub Total	£13,523	£169.0 m	

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

Items	Total	Type
Utilities: New water plant to treat additional capacity (on site)	£7.7 m	Enabling
Utilities: 1 medium to low pressure reducing station	£0.6 m	Enabling
Utilities: Electricity: Primary Substation 132/11 kV with 2 x 45 MVA transformers	£11.2 m	Enabling
Utilities: Electricity: 132 kV connection to Primary Substation from Braintree Grid	£9.2 m	Enabling
Utilities: Electricity: Diversion Works	£2.0 m	Enabling
Utilities: Potable Water: Connection to closest feasible supply & lowering main	£4.2 m	Enabling
Utilities: Waste Water: upgrades to water course discharges & pumping to river	£3.6 m	Enabling
Utilities: Gas: Extension to medium pressure network	£1.0 m	Enabling
Utilities: Telecoms: fibre optic network access chambers and diversions	£3.6 m	Enabling
Transport WoB1: Improvements to existing A120 junction & connection with B1256	£7.4 m	Obligation
Transport WoB2: New Western access from A120	£7.9 m	Obligation
Transport WoB3: Full Junction upgrade to A120	£10.2 m	Obligation
Transport WoB5: Provision of RTS (Route 3) on site	£16.9 m	Obligation
Transport WoB6: Provision of RTS network (Route 3 - off site)	£64.2 m	Obligation
Transport WoB7: Transit Hub & interchange facilities	£6.0 m	Obligation
Transport WoB8, 9 & 10: Walking & cycling including greenways, footway to Rayne, Po	£15.7 m	Obligation
Transport: WoB11 & 12: Upgrade existing & new pedestrian bridge	£10.9 m	Obligation
Transport WoB 15: Bus only slips onto A120	£1.6 m	Obligation
Sub Total	£183.9 m	

Other Items	Total	Type
Transport WoB4: Contribution to off site strategic highways	£31.3 m	Obligation
Transport WoB13: Travel plan measures	£6.3 m	Obligation
Transport WoB14: Investment in early phase public transport	£5.4 m	Obligation
Other: Funding for employment & economic development activities	£12.5 m	Obligation
Other: Long term stewardship endowment	£26.2 m	Obligation
Sub Total	£81.7 m	

SUMMARY ALL INFRASTRUCTURE

Summary of infra costs (excluding fees, finance & contingencie	Per Unit	Total
Sub Total All Enabling Costs	£21,882	£273.5m
Sub Total All Planning Obligations	£31,323	£391.5m
Total (excluding fees, contingencies & inflation)	£53,205	£665.1m
Total (including fees, contingencies and inflation)	£62,789	£784.9m

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

Professional Fees & Other Costs	Amount	Total
Strategic Planning Costs (masterplanning & approvals) - per unit	£250	£3.1 m
Scheme Year first Strategic Planning Costs accrue	3	(Year)
Number of years Strategic Planning Costs applicable	3	(Years spread)
Professional Fees (design & delivery of scheme wide works)	10.0%	£58.3 m
Stamp Duty Land Tax (on land sales)	5.3%	(on value)
Agent Fees (on land sales)	1.0%	(on value)
Legal Fees (on land sales)	0.5%	(on value)

MASTER DEVELOPER / LDV RETURN

Allowance for master-developer/LDV/infra contractor profit	Amount	Total
Masterdeveloper / LDV / infrastructure contractor profit rate	15.0%	£87.5m

CONTINGENCIES

Contingencies by Type	Amount	Total
Scheme Wide Enabling Works	10.0%	£23.0 m
Scheme Wide Community Infrastructure	10.0%	£16.9 m
Scheme Wide Other Itemised Infrastructure	10.0%	£18.4 m
Other Items		

On Plot: Constructions Costs	3.0%	(on plot calc)
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SCHEME WIDE DISCOUNT RATE, FINANCE & MIRR ASSUMPTIONS

Contingencies by Type	Amount	Total
Discount Rate (for use in NPV calculations, pre finance costs)		
General Finance Rate (For Baseline Appraisal)	6.0%	per annum
% of Scheme Wide Costs debt financed	100.0%	
Finance Rate (For MIRR calculation)	6.0%	per annum
Reinvest rate (For MIRR calculation)	6.0%	per annum

INFLATION

Type	Amount	Total
Cost inflation: On scheme wide costs		per annum
Cost inflation: On plot based build costs		per annum
Value inflation: On plot based building capital values		per annum

Assumptions adjusted to reflect specific scenario:

- Contingency at either 10%, 20% or 40%
- Inflation on cost and value

WORKSHEET 3: SITE BASED COST & VALUE ASSUMPTIONS

West of Braintree

RESIDENTIAL	
Unit Size	(sq m)
Capital value	(per sq m)
Build cost	(per sq m)
Sales related fees	
Profit on sales (to plot developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)
Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for site based works)	(on build cost)
Percentage of cost subject to finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

Private Type 1	Private Type 2	Private Type 3
private sale	0	0
100	100	100
£3,950	£3,950	£3,950
£1,330	£1,330	£1,330
15.0%	15.0%	15.0%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
1.0%	1.0%	1.0%
10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£6.1m	£6.1m	£6.1m

AH Type 1	AH Type 2	AH Type 3
Affordable Rent	Intermediate	0
80	80	80
£1,975	£2,963	£3,160
£1,330	£1,330	£1,330
6.0%	6.0%	6.0%
		1.0%
0.5%	0.5%	0.5%
		1.0%
10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.6m	£3.7m	£4.1m

COMMERCIAL	
Assumed rent	(per sqm)
Assumed Yield	
Equivalent Capital Value	(per sq m)
Build cost	(per sq m)
Sales related fees	
Profit on sales (to site developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)
Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for plot based works)	(on build cost)
Percentage of cost as debt for finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

B1 / Offices	B2, B8 Industrial	Mixed Use
	£81.00	£161.50
7.0%	6.0%	6.5%
£0	£1,350	£2,485
	£800.00	£760.00
17.5%	17.5%	17.5%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
2.0%	2.0%	2.0%
10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.0m	£0.2m	£4.0m

← Residential capital value & build cost adjusted for inflation based scenarios

West of Braintree Scenario Full Appraisals

Scenario	Worksheet Title
Reference Case with 10% contingencies	WoB 1A REFERENCE C10%
Reference Case with 20% contingencies	WoB 1B REFERENCE C20%
Reference Case with 40% contingencies	WoB 1C REFERENCE C40%
Inflation with 10% contingencies	WoB 3A INFLATION C10%
Inflation with 20% contingencies	WoB 3B INFLATION C20%
Inflation with 40% contingencies	WoB 3C INFLATION C40%

VIABILITY WORKSHEET : BASELINE APPRAISAL

West of Braintree

Project Ref: WoB 3C INFLATION C40%

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	12,500
Cumulative Commercial floorspace	328,800 sqm

18/19 19/20 20/21 21/22 22/23 23/24 24/25 25/26 26/27 27/28 28/29 29/30 30/31 31/32 32/33 33/34 34/35 35/36 40/41 45/46 50/51

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30	Yr31	Yr32	Yr33
					100	300	600	900	1,200	1,500	1,800	2,100	2,400	2,700	3,000	3,300	3,600	3,900	4,200	4,500	4,800	5,100	5,400	5,700	6,000	6,300	6,600	6,900	7,200	7,500	7,800	8,100

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	215 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	63 ha
Residential (Affordable Type 2)	42 ha
Residential (Affordable Type 3)	
Employment B1/offices	21 ha
Employment B2/B8	22 ha
Mixed Use	18 ha
Total all ha (developable residential & commercial areas)	381 ha
Total all ha (non developable & other areas)	(Pro rata) 304 ha

18/19 19/20 20/21 21/22 22/23 23/24 24/25 25/26 26/27 27/28 28/29 29/30 30/31 31/32 32/33 33/34 34/35 35/36 40/41 45/46 50/51

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30	Yr31	Yr32	Yr33
					1.7	3.4	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
					0.5	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
					0.3	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
					0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
					0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
						0.6				2.5							1.3						2.5									1.3
					3.2	6.4	8.4	8.4	8.6	11.1	8.6	8.7	8.7	9.9	8.7	8.7	8.7	9.9	8.7	8.7	8.7	11.2	8.7	8.7	8.7	9.9	8.7	8.7	8.7	9.9	8.7	8.7
					2.5	5.1	6.7	6.7	6.9	8.9	6.9	6.9	6.9	7.9	6.9	6.9	6.9	7.9	6.9	6.9	6.9	8.9	6.9	6.9	6.9	7.9	6.9	6.9	6.9	7.9	6.9	6.9

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£4,130 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£121 m
Residential (Affordable Type 2)	£484 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£14 m
Mixed Use	£229 m
Sub Total	£4,978 m

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30	Yr31	Yr32	Yr33
					12.8	26.7	41.6	43.3	45.0	46.8	48.7	50.7	52.7	54.8	57.0	59.3	61.6	64.1	66.7	69.3	72.1	75.0	78.0	81.1	84.4	87.7	91.2	94.9	98.7	102.6	106.7	111.0
					0.4	0.8	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.3
					1.5	3.1	4.9	5.1	5.3	5.5	5.7	5.9	6.2	6.4	6.7	7.0	7.2	7.5	7.8	8.1	8.5	8.8	9.1	9.5	9.9	10.3	10.7	11.1	11.6	12.0	12.5	13.0
					0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
					3.2	14.8				14.8				8.6				10.1				23.6									16.2	
					14.8	33.9	47.8	49.8	51.8	68.6	56.0	58.3	60.6	71.6	65.5	68.1	70.9	83.8	76.7	79.7	82.9	109.9	89.7	93.3	97.0	114.7	104.9	109.1	113.5	134.2	122.7	127.6

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£264 m
Agent	1.0%	£50 m
Legal Fees	0.5%	£25 m
Sub Total Sales related fees		£339 m

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30	Yr31	Yr32	Yr33	
					0.8	1.8	2.5	2.6	2.7	3.6	3.0	3.1	3.2	3.8	3.5	3.6	3.8	4.4	4.1	4.2	4.4	5.8	4.8	4.9	5.1	6.1	5.6	5.8	6.0	7.1	6.5	6.8	
					0.1	0.3	0.5	0.5	0.5	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	1.1	0.9	0.9	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.3	1.2	1.3	
					0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.5	0.6	0.5	0.5	0.6	0.7	0.6	0.6
					1.0	2.3	3.3	3.4	3.5	4.7	3.8	4.0	4.1	4.9	4.5	4.6	4.8	5.7	5.2	5.4	5.6	7.5	6.1	6.3	6.6	7.8	7.1	7.4	7.7	9.1	8.3	8.7	

Total all Land Sales & Returns (net of fees) £4,640 m

13.8 31.6 44.6 46.4 48.3 64.0 52.2 54.3 56.5 66.8 61.1 63.5 66.1 78.1 71.4 74.3 77.3 102.4 83.6 86.9 90.4 106.9 97.8 101.7 105.8 125.1 114.4 119.0

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£230.4 m
Scheme Wide Community Infrastructure	Total
Education facilities	£105.9 m
Community, Health & Well Being	£23.3 m
Open Space	£33.6 m
Environmental / sustainability / waste	£6.3 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: New water plant to treat additional capacity (on site)	£7.7 m
Utilities: 1 medium to low pressure reducing station	£0.6 m
Utilities: Electricity: Primary Substation 132/11 kV with 2 x 45 MVA transformers	£11.2 m
Utilities: Electricity: 132 kV connection to Primary Substation from Braintree Grid	£9.2 m
Utilities: Electricity: Diversion Works	£2.0 m
Utilities: Potable Water: Connection to closest feasible supply & lowering main	£4.2 m
Utilities: Waste Water: upgrades to water course discharges & pumping to river	£3.6 m
Utilities: Gas: Extension to medium pressure network	£1.0 m
Utilities: Telecoms: fibre optic network access chambers and diversions	£3.6 m
Transport WoB1: Improvements to existing A120 junction & connection with B1256	£7.4 m
Transport WoB2: New Western access from A120	£7.9 m
Transport WoB3: Full Junction upgrade to A120	£10.2 m
Transport WoB5: Provision of RTS (Route 3) on site	£16.9 m
Transport WoB6: Provision of RTS network (Route 3 - off site)	£64.2 m
Transport WoB7: Transit Hub & interchange facilities	£6.0 m
Transport WoB8, 9 & 10: Walking & cycling including greenways, footway to Rayne,	£15.7 m
Transport: WoB11 & 12: Upgrade existing & new pedestrian bridge	£10.9 m

18/19 19/20 20/21 21/22 22/23 23/24 24/25 25/26 26/27 27/28 28/29 29/30 30/31 31/32 32/33 33/34 34/35 35/36 40/41 45/46 50/51

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21	Yr22	Yr23	Yr24	Yr25	Yr26	Yr27	Yr28	Yr29	Yr30	Yr31	Yr32	Yr33
				1.8	3.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
					4.0	3.5			4.0	3.5	1.2	11.0	11.1		1.2				4.0	3.5	1.2			4.0	3.5	1.2			1.2		4.0	
						2.0				3.0					2.0					3.0					2.0				3.0			
					2.0	2.0				2.0	2.0				2.0	2.0				2.0	2.0				2.0	2.0			2.0	2.0		
					0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
					2.0	2.0	3.7																									
							0.6																									
															11.2																	
					3.0	3.0	3.2																									
					2.0										2.0	2.0									2.0	2.0						
					2.1	2.1																										
					2.0	1.6																										
					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
					7.4																											
							7.9																									
														10.2																		
						2.0	2.0	1.3																								

5. Colchester Braintree Borders Garden Community: Assumptions & Cashflows

WORKSHEET 1: LANDUSE ASSUMPTIONS

Colchester Braintree Borders Garden Community

Total Site		
Total Gross Site Area	1,170	hectares

Split By Use		
Residential	48.2%	564 ha
Open Space (strategic, formal & informal)	36.1%	422 ha
Infrastructure (incl roads, utilities, community facilities)	9.6%	112 ha
Employment B1 /Offices	2.2%	26 ha
Employment B2 B8 / Industrial	2.2%	26 ha
Mixed Use	1.7%	20 ha
Check	100.0%	1170 ha

Total Residential Units		
Average dwellings per hectare	37.2	dph
Total Dwelling Units	21,000	dwellings
Residential floorspace average per hectare	3,500	sqm / ha
Residential floorspace average per acre	15,236	sq ft / acre

Total Population		
Average Household size	2.4	per unit
Total Population	50,400	residents

Housing Tenure			
Overall Percentage Private Units		70%	User to define typology
Of which:	Private Type 1	100%	private sale
	Private Type 2		User to define
	Private Type 3		User to define

Overall Percentage Affordable Units		30%	User to define typology
Of which:	AH Type 1	60%	Affordable Rent
	AH Type 2	40%	Intermediate
	AH Type 3		

Commercial Floorspace				
Use	Total Ha	Plot Density	Storeys	Sqm (gross)
Employment B1 /Offices	26	40%	2	205,920
Employment B2 B8 / Industrial	26	40%	1	102,960
Mixed Use	20	40%	1	79,560
Total all commercial	71			388,440

WORKSHEET 2: SCHEME WIDE COST ASSUMPTIONS

Colchester Braintree Borders Garden Community

SCHEME WIDE ENABLING WORKS

Physical Costs: Site Preparation & Enabling Costs	Unit/cost	Total	Type
- Based upon generic cost per residential unit	£18,570	£390.0 m	Enabling
Sub Total		£390.0 m	

SCHEME WIDE COMMUNITY INFRASTRUCTURE

On Site: Core Social Infrastructure	Cost per unit	Total	Type
Education	£8,200	£172.2 m	Obligation
Community, Health & Well Being	£1,720	£36.1 m	Obligation
Open Space	£2,688	£56.4 m	Obligation
Environmental / sustainability / waste	£500	£10.5 m	Obligation
Sub Total	£13,108	£275.3 m	

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

Items	Total	Type
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m	Enabling
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m	Enabling
Utilities: Electricity Diversion Works	£3.7 m	Enabling
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m	Enabling
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m	Enabling
Utilities: Waste Water - 13km connection to existing works	£13.3 m	Enabling
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m	Enabling
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m	Enabling
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m	Obligation
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m	Enabling
Transport (CBB3): New junction with A12 & associated highways	£41.3 m	Obligation
Transport (CBB4): A12 realignment works (beyond core scheme)	£62.1 m	Obligation
Transport (CBB5): A12 Kelvden capacity & junction signalisation	£20.9 m	Obligation
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m	Obligation
Transport (CBB8): Provision of wider RTS network off site	£32.4 m	Obligation
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m	Obligation
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m	Obligation
Sub Total	£318.8 m	

Other Items	Total	Type
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m	Obligation
Transport: (CB11): Travel plan measures	£10.5 m	Obligation
Transport (CBB12): Investment in early phase public transport services	£10.5 m	Obligation
Other: Long term stewardship endowment	£44.1 m	Obligation
Other: Funding for employment & economic development activities	£21.0 m	Obligation
Sub Total	£117.6 m	

SUMMARY ALL INFRASTRUCTURE

Summary of infra costs (excluding fees, finance & contingencie	Per Unit	Total
Sub Total All Enabling Costs	£23,360	£490.6m
Sub Total All Planning Obligations	£29,098	£611.1m
Total (excluding fees, contingencies & inflation)	£52,459	£1101.6m
Total (including fees, contingencies and inflation)	£60,846	£1277.8m

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

Professional Fees & Other Costs	Amount	Total
Strategic Planning Costs (masterplanning & approvals) - per unit	£200	£4.2 m
Scheme Year first Strategic Planning Costs accrue	8	(Year)
Number of years Strategic Planning Costs applicable	3	(Years spread)
Professional Fees (design & delivery of scheme wide works)	10.0%	£86.0 m
Stamp Duty Land Tax (on land sales)	5.3%	(on value)
Agent Fees (on land sales)	1.0%	(on value)
Legal Fees (on land sales)	0.5%	(on value)

MASTER DEVELOPER / LDV RETURN

Allowance for master-developer/LDV/infra contractor profit	Amount	Total
Masterdeveloper / LDV / infrastructure contractor profit rate	15.0%	£129.0m

CONTINGENCIES

Contingencies by Type	Amount	Total
Scheme Wide Enabling Works	10.0%	£39.0 m
Scheme Wide Community Infrastructure	10.0%	£27.5 m
Scheme Wide Other Itemised Infrastructure	10.0%	£19.5 m
Other Items		

On Plot: Constructions Costs	3.0%	(on plot calc)
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SCHEME WIDE DISCOUNT RATE, FINANCE & MIRR ASSUMPTIONS

Contingencies by Type	Amount	Total
Discount Rate (for use in NPV calculations, pre finance costs)	2.5%	
General Finance Rate (For Baseline Appraisal)	6.0%	per annum
% of Scheme Wide Costs debt financed	100.0%	
Finance Rate (For MIRR calculation)	6.0%	per annum
Reinvest rate (For MIRR calculation)	6.0%	per annum

INFLATION

Type	Amount	Total
Cost inflation: On scheme wide costs		per annum
Cost inflation: On plot based build costs		per annum
Value inflation: On plot based building capital values		per annum

Assumptions adjusted to reflect specific scenario:

- Contingency at either 10%, 20% or 40%
- Inflation on cost and value

WORKSHEET 3: SITE BASED COST & VALUE ASSUMPTIONS

Colchester Braintree Borders Garden Community

RESIDENTIAL	
Unit Size	(sq m)
Capital value	(per sq m)
Build cost	(per sq m)

Sales related fees	
Profit on sales (to plot developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)

Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for site based works)	(on build cost)
Percentage of cost subject to finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

COMMERCIAL	
Assumed rent	(per sqm)
Assumed Yield	
Equivalent Capital Value	(per sq m)
Build cost	(per sq m)

Sales related fees	
Profit on sales (to site developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)

Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for plot based works)	(on build cost)
Percentage of cost as debt for finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

Private Type 1	Private Type 2	Private Type 3
private sale	User to define	User to define
100	100	100
£3,598	£3,598	£3,598
£1,293	£1,293	£1,293

15.0%	15.0%	15.0%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
1.0%	1.0%	1.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£4.9m	£4.9m	£4.9m

B1 / Offices	B2, B8 Industrial	Mixed Use
	£86.00	£161.50
7.0%	6.0%	6.5%
£0	£1,433	£2,485
	£804.00	£759.00

17.5%	17.5%	17.5%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
2.0%	2.0%	2.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.0m	£0.4m	£4.0m

AH Type 1	AH Type 2	AH Type 3
Affordable Rent	Intermediate	0
80	80	80
£1,799	£2,699	£2,878
£1,293	£1,293	£1,293

6.0%	6.0%	6.0%
		1.0%
0.5%	0.5%	0.5%
		1.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.2m	£2.9m	£3.2m

← Residential capital value & build cost adjusted for inflation based scenarios

Colchester Braintree Borders Scenario Full Appraisals

Scenario	Worksheet Title
Grant with 10% contingencies	CBB 2A GRANT C10%
Grant with 20% contingencies	CBB 2B GRANT C20%
Grant with 40% contingencies	CBB 2C GRANT C40%
Inflation with 10% contingencies	CBB 3A INFLATION C10%
Inflation with 20% contingencies	CBB 3B INFLATION C20%
Inflation with 40% contingencies	CBB 3C INFLATION C40%

Reference Case not included as cashflow is negative.

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£1,950 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£21 m
Residential (Affordable Type 2)	£195 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£11 m
Mixed Use	£79 m
Sub Total	£2,256 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£120 m
Agent	1.0%	£23 m
Legal Fees	0.5%	£11 m
Sub Total Sales related fees		£153 m

Total all Land Sales & Returns (net of fees) £2,103 m

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	
Transport (CBB4): A12 realignment works (beyond core scheme)	
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	360,500	374,000	378,500	383,000	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
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27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	13.9								
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2									
2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4									
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1											
2.5				2.5				9.5				2.5											
33.6	31.1	31.1	31.1	33.6	31.1	31.1	31.1	40.7	31.1	31.1	31.1	33.5	30.9	15.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

1.8	1.6	1.6	1.6	1.8	1.6	1.6	1.6	2.2	1.6	1.6	1.6	1.8	1.6	0.8									
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2									
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1									
2.3	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.3	2.1	1.1									

31.3 29.0 29.0 29.0 31.3 29.0 29.0 29.0 37.9 29.0 29.0 29.0 31.3 28.8 14.4

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2		4.0	3.6			1.2									
		2.5				2.5				1.6													
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Others	
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m
Transport (CB11): Travel plan measures	£10.5 m
Transport (CBB12): Investment in early phase public transport services	£10.5 m
Other: Long term stewardship endowment	£44.1 m
Other: Funding for employment & economic development activities	£21.0 m

Scheme Wide Cost Inflation factor (if appropriate)	
All Infrastructure Costs Sub Total	£977 m

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£86.0m

Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£129.0m

Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£39.0 m
Scheme Wide Community Infrastructure	10.0%	£27.5 m
Scheme Wide Other Itemised	10.0%	£19.5 m
Others		

Total All Costs (infrastructure, fees, profit & contingency)	£1,282 m
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£2,103 m
Total Costs	£1,282 m
Balance per annum	£821 m
Balance Cumulative	

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total land purchase costs (max per hectare)	£254,503 /ha
Total land purchase costs (max per acre)	£102,913 /acre

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£2,103 m
Total Costs	£1,580 m
Balance per annum	£523 m
Balance Cumulative	

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	£521 m
Total Finance Charges (in year, assuming midpoint)	6.0%	£2 m

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

	Total
Cashflow including land purchase costs, excluding MD profit and finance	
Total Revenue	£2,103 m
Total Costs	£1,451 m
Balance per annum	£652 m
Balance Cumulative	
IRR (UNGEARED)	9.0%

	85/86				90/91				95/96				100/101				105/106				
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
3.2				3.1					3.2												
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
11.0	6.6	9.1	10.6	15.2	9.5	8.8	6.3	10.7	8.3	11.9	9.9	6.3	3.5	4.0							

0.7	0.6	0.8	1.0	1.1	0.9	0.8	0.6	0.7	0.8	1.1	0.9	0.6	0.3	0.4							
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1.1	0.9	1.3	1.5	1.7	1.3	1.2	0.8	1.0	1.1	1.7	1.4	0.8	0.4	0.5							
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0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3							
0.1	0.0	0.3	0.4	0.6	0.3	0.3		0.1	0.2	0.6	0.4			0.4							
0.0	0.0	0.0	0.0	0.0																	

13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2							
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	85/86				90/91				95/96				100/101				105/106							
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4										
13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2										
17.8	20.3	16.9	14.9	12.1	16.4	17.3	20.7	24.8	18.0	13.2	15.9	23.0	24.3	9.2										
573.5	593.8	610.7	625.6	637.8	654.2	671.5	692.2	717.0	735.1	748.2	764.1	787.1	811.4	820.6	820.6	820.6	820.6	820.6	820.6	820.6	820.6	820.6	820.6	820.6

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16.2	16.2	17.4	16.2	16.2	16.2	20.6	16.2	16.2	16.2	16.9	14.8	7.4											
4.1	4.1	4.4	4.1	4.1	4.1	5.2	4.1	4.1	4.1	4.3	3.8	1.9											

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
17.6	12.8	16.5	18.2	23.3	16.7	16.9	12.4	17.2	15.1	20.1	16.9	10.2	4.5	5.2									
13.7	16.2	12.5	10.8	8.0	12.3	12.1	16.6	20.7	13.9	8.9	12.1	21.1	24.3	9.2									
324.2	340.4	352.9	363.7	371.7	384.0	396.1	412.7	433.4	447.3	456.1	468.2	489.3	513.6	522.8	522.8	522.8	522.8	522.8	522.8	522.8	522.8	522.8	522.8

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
-8.1	-7.7	-7.2	-6.9	-6.7	-6.6	-6.3	-5.9	-5.3	-4.3	-3.8	-3.5	-3.0	-1.9	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	8.4	5.3	3.9	1.3	5.7	5.8	10.7	15.4	9.5	5.1	8.6	18.1	22.5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-129.0	-120.5	-115.3	-111.4	-110.1	-104.4	-98.6	-87.9	-72.5	-62.9	-57.9	-49.3	-31.1	-8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
16.6	11.9	15.2	16.7	21.6	15.4	15.7	11.6	16.2	14.0	18.4	15.5	9.3	4.1	4.7									
14.8	17.1	13.8	12.3	9.7	13.6	13.3	17.4	21.7	15.0	10.5	13.5	21.9	24.7	9.7									
437.5	454.6	468.4	480.6	490.3	503.9	517.2	534.6	556.3	571.4	581.9	595.4	617.3	642.0	651.7	651.7	651.7	651.7	651.7	651.7	651.7	651.7	651.7	651.7

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£1,950 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£21 m
Residential (Affordable Type 2)	£195 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£11 m
Mixed Use	£79 m
Sub Total	£2,256 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£120 m
Agent	1.0%	£23 m
Legal Fees	0.5%	£11 m
Sub Total Sales related fees		£153 m

Total all Land Sales & Returns (net of fees) £2,103 m

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	
Transport (CBB4): A12 realignment works (beyond core scheme)	
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	360,500	374,000	378,500	383,000	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	13.9									
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2									
2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4									
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1											
2.5				2.5				9.5				2.5											
33.6	31.1	31.1	31.1	33.6	31.1	31.1	31.1	40.7	31.1	31.1	31.1	33.5	30.9	15.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
1.8	1.6	1.6	1.6	1.8	1.6	1.6	1.6	2.2	1.6	1.6	1.6	1.8	1.6	0.8									
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2								
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1									
2.3	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.3	2.1	1.1									

31.3 29.0 29.0 29.0 31.3 29.0 29.0 29.0 37.9 29.0 29.0 29.0 31.3 28.8 14.4

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2			4.0	3.6		1.2									
		2.5				2.5					1.6												
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Others	
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m
Transport (CB11): Travel plan measures	£10.5 m
Transport (CBB12): Investment in early phase public transport services	£10.5 m
Other: Long term stewardship endowment	£44.1 m
Other: Funding for employment & economic development activities	£21.0 m

Scheme Wide Cost Inflation factor (if appropriate)	
All Infrastructure Costs Sub Total	£977 m

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£86.0m

Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£129.0m

Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£39.0 m
Scheme Wide Community Infrastructure	10.0%	£27.5 m
Scheme Wide Other Itemised	20.0%	£38.9 m
Others		

Total All Costs (infrastructure, fees, profit & contingency)	£1,302 m
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£2,103 m
Total Costs	£1,302 m
Balance per annum	£801 m
Balance Cumulative	

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total Land purchase costs (max per hectare)	£218,059 /ha £255 m
Total Land purchase costs (max per acre)	£88,176 /acre

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£2,103 m
Total Costs	£1,557 m
Balance per annum	£546 m
Balance Cumulative	

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	£544 m
Total Finance Charges (in year, assuming midpoint)	6.0%	£2 m

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

	Total
Cashflow including land purchase costs, excluding MD profit and finance	
Total Revenue	£2,103 m
Total Costs	£1,428 m
Balance per annum	£675 m
Balance Cumulative	
IRR (UNGEARED)	8.9%

	85/86				90/91				95/96				100/101				105/106			
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
3.2				3.1				3.2												
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	

100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
11.0	6.6	9.1	10.6	15.2	9.5	8.8	6.3	10.7	8.3	11.9	9.9	6.3	3.5	4.0						

0.7	0.6	0.8	1.0	1.1	0.9	0.8	0.6	0.7	0.8	1.1	0.9	0.6	0.3	0.4						
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1.1	0.9	1.3	1.5	1.7	1.3	1.2	0.8	1.0	1.1	1.7	1.4	0.8	0.4	0.5						
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0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3							
0.1	0.0	0.3	0.4	0.6	0.3	0.3		0.1	0.2	0.6	0.4		0.4							
0.0	0.0	0.0	0.0	0.0																

13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2						
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	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2									
17.8	20.3	16.9	14.9	12.1	16.4	17.3	20.7	24.8	18.0	13.2	15.9	23.0	24.3	9.2									
554.1	574.4	591.3	606.2	618.3	634.7	652.0	672.8	697.6	715.6	728.8	744.6	767.6	791.9	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16.2	16.2	17.4	16.2	16.2	16.2	20.6	16.2	16.2	16.2	16.9	14.8	7.4											
3.5	3.5	3.8	3.5	3.5	3.5	4.5	3.5	3.5	3.5	3.7	3.2	1.6											

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
17.0	12.2	15.8	17.6	22.7	16.1	16.1	11.8	16.6	14.5	19.5	16.4	9.9	4.5	5.2									
14.3	16.8	13.1	11.4	8.6	12.9	12.8	17.2	21.3	14.5	9.5	12.6	21.4	24.3	9.2									
340.5	357.3	370.4	381.8	390.4	403.2	416.1	433.2	454.5	469.0	478.5	491.1	512.5	536.8	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
-8.4	-8.0	-7.5	-7.2	-6.9	-6.8	-6.5	-6.1	-5.4	-4.5	-3.9	-3.5	-3.0	-1.9	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.9	8.7	5.6	4.2	1.6	6.0	6.4	11.1	15.9	10.0	5.6	9.1	18.4	22.5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-133.9	-125.1	-119.5	-115.3	-113.7	-107.6	-101.3	-90.1	-74.3	-64.2	-58.6	-49.5	-31.1	-8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
16.0	11.3	14.6	16.1	21.0	14.8	14.9	11.0	15.6	13.4	17.8	15.0	9.1	4.1	4.7									
15.3	17.6	14.4	12.8	10.3	14.2	14.1	18.0	22.3	15.6	11.2	14.0	22.2	24.7	9.7									
453.8	471.4	485.8	498.7	509.0	523.1	537.2	555.2	577.5	593.1	604.3	618.3	640.5	665.2	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£1,950 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£21 m
Residential (Affordable Type 2)	£195 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£11 m
Mixed Use	£79 m
Sub Total	£2,256 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£120 m
Agent	1.0%	£23 m
Legal Fees	0.5%	£11 m
Sub Total Sales related fees		£153 m

Total all Land Sales & Returns (net of fees)	£2,103 m
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INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	
Transport (CBB4): A12 realignment works (beyond core scheme)	
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	360,560	374,060	378,560	383,060	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
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27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	13.9								
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2									
2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4									
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1											
2.5				2.5				9.5				2.5											
33.6	31.1	31.1	31.1	33.6	31.1	31.1	31.1	40.7	31.1	31.1	31.1	33.5	30.9	15.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
1.8	1.6	1.6	1.6	1.8	1.6	1.6	1.6	2.2	1.6	1.6	1.6	1.8	1.6	0.8									
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2									
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1									
2.3	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.3	2.1	1.1									

31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
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85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2		4.0	3.6			1.2									
		2.5				2.5				1.6													
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Others	
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m
Transport (CB11): Travel plan measures	£10.5 m
Transport (CBB12): Investment in early phase public transport services	£10.5 m
Other: Long term stewardship endowment	£44.1 m
Other: Funding for employment & economic development activities	£21.0 m

Scheme Wide Cost Inflation factor (if appropriate)	
All Infrastructure Costs Sub Total	£977 m

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£86.0m

Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£129.0m

Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£39.0 m
Scheme Wide Community Infrastructure	10.0%	£27.5 m
Scheme Wide Other Itemised	40.0%	£77.8 m
Others		

Total All Costs (infrastructure, fees, profit & contingency)	£1,341 m
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£2,103 m
Total Costs	£1,341 m
Balance per annum	£762 m
Balance Cumulative	

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total Land purchase costs (max per hectare)	£145,170 /ha £170 m
Total Land purchase costs (max per acre)	£58,702 /acre

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£2,103 m
Total Costs	£1,511 m
Balance per annum	£592 m
Balance Cumulative	

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	-£589 m
Total Finance Charges (in year, assuming midpoint)	6.0%	-£3 m

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

	Total
Cashflow including land purchase costs, excluding MD profit and finance	
Total Revenue	£2,103 m
Total Costs	£1,382 m
Balance per annum	£721 m
Balance Cumulative	
IRR (UNGEARED)	8.7%

	85/86				90/91				95/96				100/101				105/106				
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
3.2				3.1					3.2												
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
11.0	6.6	9.1	10.6	15.2	9.5	8.8	6.3	10.7	8.3	11.9	9.9	6.3	3.5	4.0							

0.7	0.6	0.8	1.0	1.1	0.9	0.8	0.6	0.7	0.8	1.1	0.9	0.6	0.3	0.4							
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1.1	0.9	1.3	1.5	1.7	1.3	1.2	0.8	1.0	1.1	1.7	1.4	0.8	0.4	0.5							
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0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3								
0.1	0.0	0.3	0.4	0.6	0.3	0.3		0.1	0.2	0.6	0.4		0.4								
0.0	0.0	0.0	0.0	0.0																	

13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2							
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	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
13.5	8.7	12.1	14.1	19.2	12.6	11.6	8.3	13.1	11.0	15.8	13.1	8.3	4.5	5.2									
17.8	20.3	16.9	14.9	12.1	16.4	17.3	20.7	24.8	18.0	13.2	15.9	23.0	24.3	9.2									
515.3	535.5	552.4	567.3	579.4	595.8	613.1	633.9	658.7	676.7	689.9	705.7	728.7	753.0	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16.2	16.2	17.4	16.2	16.2	16.2	20.6	16.2	16.2	16.2	16.9	14.8	7.4											
2.4	2.4	2.5	2.4	2.4	2.4	3.0	2.4	2.4	2.4	2.4	2.2	1.1											

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
15.9	11.1	14.6	16.5	21.6	14.9	14.6	10.6	15.4	13.3	18.3	15.3	9.3	4.5	5.2									
15.4	17.9	14.4	12.5	9.7	14.0	14.3	18.4	22.5	15.7	10.7	13.7	21.9	24.3	9.2									
373.1	391.0	405.4	417.9	427.7	441.7	456.0	474.4	496.9	512.5	523.3	537.0	558.9	583.2	592.4	592.4	592.4	592.4	592.4	592.4	592.4	592.4	592.4	592.4

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
-9.0	-8.6	-8.1	-7.7	-7.4	-7.3	-6.8	-6.4	-5.7	-4.7	-4.0	-3.6	-3.0	-1.9	-0.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
6.4	9.3	6.3	4.8	2.3	6.8	7.5	12.0	16.8	11.0	6.7	10.1	18.9	22.5	8.7									
-143.7	-134.4	-128.0	-123.2	-120.9	-114.1	-106.6	-94.6	-77.8	-66.8	-60.1	-50.0	-31.1	-8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	85/86				90/91				95/96				100/101				105/106						
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
31.3	29.0	29.0	29.0	31.3	29.0	29.0	29.0	37.9	29.0	29.0	29.0	31.3	28.8	14.4									
14.8	10.2	13.3	15.0	19.9	13.6	13.4	9.8	14.4	12.2	16.6	13.9	8.5	4.1	4.7									
16.5	18.8	15.6	14.0	11.4	15.4	15.6	19.2	23.5	16.8	12.4	15.1	22.7	24.7	9.7									
486.4	505.2	520.8	534.8	546.3	561.6	577.2	596.4	619.9	636.7	649.0	664.1	686.9	711.6	721.3	721.3	721.3	721.3	721.3	721.3	721.3	721.3	721.3	721.3

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Project Ref: CBB 3A INFLATION C10%

	55/56	60/61	65/66	70/71	75/76	80/81
Others						
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m					
Transport (CB11): Travel plan measures	£10.5 m					
Transport (CBB12): Investment in early phase public transport services	£10.5 m					
Other: Long term stewardship endowment	£44.1 m					
Other: Funding for employment & economic development activities	£21.0 m					

	55/56	60/61	65/66	70/71	75/76	80/81
0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3
	3.1	3.2				
0.3	0.3	0.3	0.3	0.3	0.3	0.3

Scheme Wide Cost Inflation factor (if appropriate)	3.5%
All Infrastructure Costs Sub Total	£5,023 m

311%	322%	333%	345%	357%	370%	383%	396%	410%	424%	439%	454%	470%	487%	504%	521%	540%	558%	578%	598%	619%	641%	663%	687%	711%	735%	761%	788%	815%	844%	873%	904%	936%
98.1	64.8	38.1	46.7	37.6	33.7	47.1	32.8	39.8	94.2	57.2	57.3	37.7	45.4	50.5	46.0	69.2	58.8	60.2	59.4	54.0	64.0	45.2	91.5	109.6	64.9	51.9	177.2	73.6	116.6	105.9	200.0	165.8

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£98.4m

3.0	1.9	0.7	1.2	0.9	0.8	0.8	0.7	0.8	1.8	1.2	1.1	0.7	0.8	0.6	0.8	1.2	1.0	0.9	0.6	0.8	0.9	0.6	1.2	1.1	0.8	0.6	2.2	0.8	1.0	1.1	2.1	1.7
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Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£658.3m

14.1	9.1	3.5	6.4	5.0	4.4	4.5	4.2	5.2	11.4	7.8	7.7	5.0	6.1	4.4	6.2	9.6	8.0	8.2	5.3	7.2	8.7	5.8	12.7	12.0	8.7	6.7	25.5	9.9	12.5	14.9	29.0	23.8
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Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£223.2 m
Scheme Wide Community Infrastructure	10.0%	£147.6 m
Scheme Wide Other Itemised	10.0%	£68.0 m
Others		

1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	4.9	5.0	5.2
4.1	4.3	0.5	2.3	1.3	0.8	0.8	0.5	1.1	0.1	2.7	2.6	0.7	1.3	0.1	1.1	3.3	2.1	2.3	0.1	1.4	2.2	0.1	4.6	4.1	1.6	0.2	3.4	0.2	3.5	5.1	14.2	10.6
3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1			0.0	0.0	0.0	0.1	0.1	0.1	0.2		0.1		0.1	0.1	0.1		0.1	0.1	9.1	1.9	0.1		0.1	0.1

Total All Costs (infrastructure, fees, profit & contingency)	£6,222 m
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124.7	81.9	44.7	58.5	46.8	41.8	55.4	40.5	49.4	115.0	71.3	71.4	46.7	56.4	58.5	57.0	86.4	73.1	74.9	68.7	66.8	79.4	55.6	113.9	130.7	80.1	63.7	221.8	90.8	138.5	131.8	250.4	207.2
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£16,490 m
Total Costs	£6,222 m
Balance per annum	£10,268 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
124.7	81.9	44.7	58.5	46.8	41.8	55.4
-18.9	72.3	69.7	60.5	76.9	97.2	78.4
265.0	337.3	407.0	467.5	544.4	641.7	720.0

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total Land purchase costs (max per hectare)	£1,883 m
Total Land purchase costs (max per acre)	£650,728 /acre

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
16.2	16.2	16.2	17.4	16.2	16.2	16.2
26.1	26.1	26.1	28.0	26.1	26.1	26.1

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£16,490 m
Total Costs	£8,105 m
Balance per annum	£8,385 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
150.8	108.0	70.8	86.4	72.9	67.9	81.5
-45.0	46.2	43.6	32.5	50.8	71.1	52.3
-429.4	-383.2	-339.6	-307.1	-256.2	-185.1	-132.8

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	-£8,379 m
Total Finance Charges (in year, assuming midpoint)	6.0%	-£6 m

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
-95.1	-103.6	-107.0	-110.8	-115.5	-119.4	-122.3
-0.6						

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
-140.7	-57.4	-63.4	-78.3	-64.7	-48.3	-70.0
-1726.0	-1783.4	-1846.8	-1925.1	-1989.7	-2038.0	-2108.0

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

Cashflow including land purchase costs, excluding MD profit and finance	Total
Total Revenue	£16,490 m
Total Costs	£7,447 m
Balance per annum	£9,044 m
Balance Cumulative	
IRR (UNGEARED)	6.7%

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
136.6	98.9	67.2	80.1	67.9	63.5	77.0
-30.9	55.3	47.1	38.9	55.8	75.5	56.8
-274.3	-219.1	-171.9	-133.0	-77.2	-1.7	55.1

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£15,319 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£167 m
Residential (Affordable Type 2)	£1,529 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£85 m
Mixed Use	£594 m
Sub Total	£17,694 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£938 m
Agent	1.0%	£177 m
Legal Fees	0.5%	£88 m
Sub Total Sales related fees		£1,203 m

Total all Land Sales & Returns (net of fees) £16,490 m

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	£41.3 m
Transport (CBB4): A12 realignment works (beyond core scheme)	£62.1 m
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	£20.9 m
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	369,560	374,060	378,560	383,060	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
370.7	385.5	401.0	417.0	433.7	451.0	469.1	487.8	507.4	527.6	548.8	570.7	593.5	617.3	321.0									
4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3	5.5	5.8	6.0	6.2	6.5	6.7	3.5									
37.0	38.5	40.0	41.6	43.3	45.0	46.8	48.7	50.6	52.7	54.8	57.0	59.2	61.6	32.0									
2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.2	3.3	3.4	2.3											
33.2				38.9				174.0				53.2											
447.2	430.5	447.8	465.7	523.2	503.7	523.8	544.8	740.5	589.2	612.8	637.3	714.7	685.6	356.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
23.7	22.8	23.7	24.7	27.7	26.7	27.8	28.9	39.2	31.2	32.5	33.8	37.9	36.3	18.9									
4.5	4.3	4.5	4.7	5.2	5.0	5.2	5.4	7.4	5.9	6.1	6.4	7.1	6.9	3.6									
2.2	2.2	2.2	2.3	2.6	2.5	2.6	2.7	3.7	2.9	3.1	3.2	3.6	3.4	1.8									
30.4	29.3	30.4	31.7	35.6	34.3	35.6	37.0	50.4	40.1	41.7	43.3	48.6	46.6	24.2									

416.8 401.3 417.3 434.0 487.6 469.4 488.2 507.7 690.2 549.2 571.1 594.0 666.1 639.0 332.3

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2		4.0	3.6			1.2									
		2.5				2.5				1.6													
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Others	
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Others		

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CASHFLOW BEFORE LAND & FINANCE

		Total
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Total Costs		£6,222 m
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Balance Cumulative		

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
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Total land purchase costs (max per hectare)	£1,609,250 /ha £1,883 m
Total land purchase costs (max per acre)	£650,728 /acre

CASHFLOW AFTER LAND & FINANCE

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Cashflow after land purchase		
Total Revenue		£16,490 m
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Balance Cumulative		

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	-£8,379 m
Total Finance Charges (in year, assuming midpoint)	6.0%	-£6 m

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

		Total
Cashflow including land purchase costs, excluding MD profit and finance		
Total Revenue		£16,490 m
Total Costs		£7,447 m
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Balance Cumulative		
IRR (UNGEARED)		6.7%

	85/86					90/91						95/96				100/101				105/106	
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2					
3.2					3.1					3.2											
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2					

968%	1002%	1037%	1074%	1111%	1150%	1190%	1232%	1275%	1320%	1366%	1414%	1463%	1515%	1568%	1622%	1679%	1738%	1799%	1862%	1927%	1994%	2064%	2136%
106.7	66.4	94.6	114.0	169.1	109.5	105.0	77.9	136.3	109.8	162.8	140.3	92.5	53.5	62.6									

0.7	0.6	0.8	1.0	1.1	0.9	0.8	0.6	0.7	0.8	1.1	0.9	0.6	0.3	0.4									
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10.3	8.8	13.0	15.9	19.0	15.1	14.4	10.3	12.9	15.0	22.9	19.4	12.2	6.3	8.4									
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5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.9	7.1	7.4	7.6	7.9	8.2	4.2										
1.4	0.2	2.8	4.5	6.3	3.7	3.0		1.5	2.6	7.6	5.1			5.6									
0.1	0.1	0.1	0.1	0.1																			

124.6	81.7	117.2	141.5	201.9	135.6	129.8	95.6	158.5	135.6	202.1	173.6	113.4	64.4	77.0									
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	85/86					90/91					95/96				100/101					105/106				
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
416.8	401.3	417.3	434.0	487.6	469.4	488.2	507.7	690.2	549.2	571.1	594.0	666.1	639.0	332.3										
124.6	81.7	117.2	141.5	201.9	135.6	129.8	95.6	158.5	135.6	202.1	173.6	113.4	64.4	77.0										
292.3	319.6	300.2	292.5	285.7	333.8	358.4	412.1	531.7	413.6	369.0	420.4	552.7	574.6	255.3										
4848.4	5168.0	5468.1	5760.6	6046.4	6380.2	6738.6	7150.7	7682.4	8096.0	8465.0	8885.4	9438.1	10012.7	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0	10268.0

	85/86					90/91					95/96				100/101					105/106				
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
16.2	16.2	17.4	16.2	16.2	16.2	20.6	16.2	16.2	16.2	16.9	14.8	7.4												
26.1	26.1	28.0	26.1	26.1	26.1	33.2	26.1	26.1	26.1	27.2	23.9	11.9												

	85/86					90/91					95/96				100/101					105/106				
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
416.8	401.3	417.3	434.0	487.6	469.4	488.2	507.7	690.2	549.2	571.1	594.0	666.1	639.0	332.3										
150.7	107.8	145.1	167.6	228.0	161.7	163.0	121.7	184.6	161.7	229.3	197.5	125.4	64.4	77.0										
266.2	293.5	272.2	266.4	259.6	307.7	325.2	386.0	505.6	387.5	341.9	396.5	540.8	574.6	255.3										
3272.3	3565.9	3838.1	4104.4	4364.1	4671.8	4997.0	5383.0	5888.6	6276.1	6618.0	7014.5	7555.2	8129.9	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2	8385.2

	85/86					90/91					95/96				100/101					105/106				
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
-199.7	-195.7	-189.8	-184.9	-180.0	-175.2	-167.3	-157.8	-144.1	-122.4	-106.5	-92.4	-74.2	-46.2	-14.5										

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
66.5	97.8	82.4	81.5	79.6	132.5	157.9	228.2	361.5	265.1	235.3	304.1	466.6	528.5	240.9									
-3261.8	-3164.0	-3081.7	-3000.2	-2920.5	-2788.0	-2630.1	-2401.9	-2040.4	-1775.4	-1540.0	-1235.9	-769.3	-240.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	85/86					90/91					95/96				100/101					105/106				
Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90	
416.8	401.3	417.3	434.0	487.6	469.4	488.2	507.7	690.2	549.2	571.1	594.0	666.1	639.0	332.3										
140.4	98.9	132.1	151.7	209.0	146.6	148.6	111.4	171.7	146.7	206.4	178.0	113.1	58.0	68.6										
276.4	302.3	285.2	282.3	278.6	322.9	339.6	396.3	518.5	402.5	364.8	415.9	553.0	580.0	263.7										
3737.0	4039.3	4324.5	4606.8	4885.4	5208.3	5547.9	5944.2	6462.7	6865.2	7229.9	7645.9	8198.9	8779.8	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5	9043.5

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Project Ref: CBB 3B INFLATION C20%

	55/56	60/61	65/66	70/71	75/76	80/81
Others						
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m					
Transport (CBB1): Travel plan measures	£10.5 m					
Transport (CBB12): Investment in early phase public transport services	£10.5 m					
Other: Long term stewardship endowment	£44.1 m					
Other: Funding for employment & economic development activities	£21.0 m					

	55/56	60/61	65/66	70/71	75/76	80/81
0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3
	3.1	3.2	3.1			
0.3	0.3	0.3	0.3	0.3	0.3	0.3

Scheme Wide Cost Inflation factor (if appropriate)	3.5%
All Infrastructure Costs Sub Total	£5,023 m

311%	322%	333%	345%	357%	370%	383%	396%	410%	424%	439%	454%	470%	487%	504%	521%	540%	558%	578%	598%	619%	641%	663%	687%	711%	735%	761%	788%	815%	844%	873%	904%	936%
98.1	64.8	38.1	46.7	37.6	33.7	47.1	32.8	39.8	94.2	57.2	57.3	37.7	45.4	50.5	46.0	69.2	58.8	60.2	59.4	54.0	64.0	45.2	91.5	109.6	64.9	51.9	177.2	73.6	116.6	105.9	200.0	165.8

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£98.4m

3.0	1.9	0.7	1.2	0.9	0.8	0.8	0.7	0.8	1.8	1.2	1.1	0.7	0.8	1.2	1.0	0.9	0.6	0.8	0.9	0.6	1.2	1.1	0.8	0.6	2.2	0.8	1.0	1.1	2.1	1.7
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Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£658.3m

14.1	9.1	3.5	6.4	5.0	4.4	4.5	4.2	5.2	11.4	7.8	7.7	5.0	6.1	4.4	6.2	9.6	8.0	8.2	5.3	7.2	8.7	5.8	12.7	12.0	8.7	6.7	25.5	9.9	12.5	14.9	29.0	23.8
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Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£223.2 m
Scheme Wide Community Infrastructure	10.0%	£147.6 m
Scheme Wide Other Itemised	20.0%	£136.1 m
Others		

1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	4.9	5.0	5.2
4.1	4.3	0.5	2.3	1.3	0.8	0.8	0.5	1.1	0.1	2.7	2.6	0.7	1.3	0.1	1.1	3.3	2.1	2.3	0.1	1.4	2.2	0.1	4.6	4.1	1.6	0.2	3.4	0.2	3.5	5.1	14.2	10.6
7.2	0.1	0.1	0.1		0.1	0.1	0.1	0.2	10.3		0.1	0.1	0.1	0.1	0.1	0.1	0.3		0.1		0.1	0.1	0.1		0.1	0.2	18.3	3.8	0.2		0.2	0.2

Total All Costs (infrastructure, fees, profit & contingency)	£6,290 m
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128.2	81.9	44.7	58.5	46.8	41.8	55.5	40.5	49.4	120.1	71.3	71.4	46.8	56.4	58.5	57.1	86.4	73.2	74.9	68.8	66.8	79.5	55.6	114.0	130.7	80.2	63.8	230.9	92.7	138.5	131.8	250.5	207.3
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£16,490 m
Total Costs	£6,290 m
Balance per annum	£10,200 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
128.2	81.9	44.7	58.5	46.8	41.8	55.5
-22.5	72.2	69.7	60.5	76.9	97.2	78.3
215.1	287.3	357.0	417.5	494.4	591.6	669.9

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total Land purchase costs (max per hectare)	£1,486,521 /ha
Total Land purchase costs (max per acre)	£601,100 /acre

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
16.2	16.2	16.2	17.4	16.2	16.2	16.2
24.1	24.1	24.1	25.8	24.1	24.1	24.1

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£16,490 m
Total Costs	£8,030 m
Balance per annum	£8,461 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
152.4	106.0	68.8	84.3	70.9	65.9	79.6
-46.6	48.1	45.6	34.6	52.8	73.1	54.2
-426.3	-378.2	-332.7	-298.0	-245.2	-172.1	-117.9

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	£8,453 m
Total Finance Charges (in year, assuming midpoint)	6.0%	£7 m

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
-96.5	-105.1	-108.5	-112.3	-116.9	-120.8	-123.6
-0.7						

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
-143.7	-57.0	-62.9	-77.6	-64.1	-47.7	-69.4
-1751.4	-1808.4	-1871.3	-1949.0	-2013.1	-2060.8	-2130.2

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

Cashflow including land purchase costs, excluding MD profit and finance	Total
Total Revenue	£16,490 m
Total Costs	£7,371 m
Balance per annum	£9,119 m
Balance Cumulative	
IRR (UNGEARED)	6.7%

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
138.2	96.9	65.3	78.0	65.9	61.6	75.1
-32.5	57.2	49.1	41.0	57.8	77.4	58.7
-271.3	-214.1	-165.0	-124.0	-66.2	11.3	70.0

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£15,319 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£167 m
Residential (Affordable Type 2)	£1,529 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£85 m
Mixed Use	£594 m
Sub Total	£17,694 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£938 m
Agent	1.0%	£177 m
Legal Fees	0.5%	£88 m
Sub Total Sales related fees		£1,203 m

Total all Land Sales & Returns (net of fees) £16,490 m

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	£41.3 m
Transport (CBB4): A12 realignment works (beyond core scheme)	£62.1 m
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	£20.9 m
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	360,500	374,000	378,500	383,000	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
370.7	385.5	401.0	417.0	433.7	451.0	469.1	487.8	507.4	527.6	548.8	570.7	593.5	617.3	321.0									
4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3	5.5	5.8	6.0	6.2	6.5	6.7	3.5									
37.0	38.5	40.0	41.6	43.3	45.0	46.8	48.7	50.6	52.7	54.8	57.0	59.2	61.6	32.0									
2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.2	3.3	3.4	2.3											
33.2				38.9				174.0				53.2											
447.2	430.5	447.8	465.7	523.2	503.7	523.8	544.8	740.5	589.2	612.8	637.3	714.7	685.6	356.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
23.7	22.8	23.7	24.7	27.7	26.7	27.8	28.9	39.2	31.2	32.5	33.8	37.9	36.3	18.9									
4.5	4.3	4.5	4.7	5.2	5.0	5.2	5.4	7.4	5.9	6.1	6.4	7.1	6.9	3.6									
2.2	2.2	2.2	2.3	2.6	2.5	2.6	2.7	3.7	2.9	3.1	3.2	3.6	3.4	1.8									
30.4	29.3	30.4	31.7	35.6	34.3	35.6	37.0	50.4	40.1	41.7	43.3	48.6	46.6	24.2									

416.8 401.3 417.3 434.0 487.6 469.4 488.2 507.7 690.2 549.2 571.1 594.0 666.1 639.0 332.3

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2		4.0	3.6			1.2									
		2.5				2.5				1.6													
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

Project Ref: CBB 3C INFLATION C40%

	55/56	60/61	65/66	70/71	75/76	80/81
Others						
Transport (CBB6): Contribution to A120 strategic improvements	£31.5 m					
Transport (CBB1): Travel plan measures	£10.5 m					
Transport (CBB12): Investment in early phase public transport services	£10.5 m					
Other: Long term stewardship endowment	£44.1 m					
Other: Funding for employment & economic development activities	£21.0 m					

	55/56	60/61	65/66	70/71	75/76	80/81
0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3
3.1	3.1	3.2	3.1	3.1	3.2	3.1
0.3	0.3	0.3	0.3	0.3	0.3	0.3

Scheme Wide Cost Inflation factor (if appropriate)	3.5%
All Infrastructure Costs Sub Total	£5,023 m

311%	322%	333%	345%	357%	370%	383%	396%	410%	424%	439%	454%	470%	487%	504%	521%	540%	558%	578%	598%	619%	641%	663%	687%	711%	735%	761%	788%	815%	844%	873%	904%	936%
98.1	64.8	38.1	46.7	37.6	33.7	47.1	32.8	39.8	94.2	57.2	57.3	37.7	45.4	50.5	46.0	69.2	58.8	60.2	59.4	54.0	64.0	45.2	91.5	109.6	64.9	51.9	177.2	73.6	116.6	105.9	200.0	165.8

Professional Fees	Rate	Total
Strategic Planning Costs	£4.2m	£4.2m
Professional Fees (applied to costs excluding 'Others')	10.0%	£98.4m

3.0	1.9	0.7	1.2	0.9	0.8	0.8	0.7	0.8	1.2	1.2	1.1	0.7	0.8	0.6	0.8	1.2	1.0	0.9	0.6	0.8	0.9	0.6	1.2	1.1	0.8	0.6	2.2	0.8	1.0	1.1	2.1	1.7
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Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£658.3m

14.1	9.1	3.5	6.4	5.0	4.4	4.5	4.2	5.2	11.4	7.8	7.7	5.0	6.1	4.4	6.2	9.6	8.0	8.2	5.3	7.2	8.7	5.8	12.7	12.0	8.7	6.7	25.5	9.9	12.5	14.9	29.0	23.8
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Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£223.2 m
Scheme Wide Community Infrastructure	10.0%	£147.6 m
Scheme Wide Other Itemised	40.0%	£272.1 m
Others		

1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	4.9	5.0	5.2
4.1	4.3	0.5	2.3	1.3	0.8	0.8	0.5	1.1	0.1	2.7	2.6	0.7	1.3	0.1	1.1	3.3	2.1	2.3	0.1	1.4	2.2	0.1	4.6	4.1	1.6	0.2	3.4	0.2	3.5	5.1	14.2	10.6
14.3	0.1	0.1	0.1		0.1	0.2	0.2	0.3	20.5		0.2	0.2	0.2	0.2	0.2	0.2	0.7		0.2		0.3	0.3	0.3		0.3	0.3	36.6	7.5	0.3		0.4	0.4

Total All Costs (infrastructure, fees, profit & contingency)	£6,427 m
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135.4	82.0	44.8	58.6	46.8	41.9	55.6	40.6	49.6	130.4	71.3	71.5	46.9	56.5	58.6	57.2	86.5	73.6	74.9	68.9	66.8	79.6	55.8	114.1	130.7	80.4	63.9	249.2	96.4	138.7	131.8	250.7	207.5
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CASHFLOW BEFORE LAND & FINANCE

	Total
Total Revenue	£16,490 m
Total Costs	£6,427 m
Balance per annum	£10,064 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
135.4	82.0	44.8	58.6	46.8	41.9	55.6
-29.7	72.2	69.6	60.4	76.9	97.1	78.3
115.2	187.4	257.0	317.4	394.3	491.5	569.7

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	1170.0
Total Land purchase costs (max per hectare)	£1,238,789 /ha
Total Land purchase costs (max per acre)	£500,926 /acre

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
16.2	16.2	16.2	17.4	16.2	16.2	16.2
20.1	20.1	20.1	21.5	20.1	20.1	20.1

CASHFLOW AFTER LAND & FINANCE

	Total
Cashflow after land purchase	
Total Revenue	£16,490 m
Total Costs	£7,876 m
Balance per annum	£8,614 m
Balance Cumulative	

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
155.5	102.1	64.9	80.1	66.9	62.0	75.7
-49.7	52.1	49.5	38.9	56.9	77.0	58.2
-419.3	-367.2	-317.7	-278.9	-222.0	-145.0	-86.8

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	£8,603 m
Total Finance Charges (in year, assuming midpoint)	6.0%	£11 m

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
-99.2	-108.2	-111.5	-115.3	-119.8	-123.6	-126.4
-9.9						

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40	Yr41	Yr42	Yr43	Yr44	Yr45	Yr46	Yr47	Yr48	Yr49	Yr50	Yr51	Yr52	Yr53	Yr54	Yr55	Yr56	Yr57	Yr58	Yr59	Yr60	Yr61	Yr62	Yr63	Yr64	Yr65	Yr66
-149.8	-56.1	-62.0	-76.4	-63.0	-46.6	-68.3	-53.5	-58.7	-125.1	-79.6	-79.8	-52.0	-43.8	-55.6	-51.6	-75.1	-42.1	-54.2	-48.7	-34.9	36.9	-4.8	-54.9	-62.9	17.2	23.3	-150.3	7.1	4.4	-1.7	-108.4	-56.0
-1802.9	-1859.0	-1921.0	-1997.4	-2060.4	-2107.0	-2175.2	-2228.7	-2287.4	-2412.5	-2492.1	-2571.8	-2623.8	-2667.6	-2723.2	-2774.9	-2849.9	-2892.1	-2946.3	-2995.0	-3029.8	-2992.9	-2997.7	-3052.6	-3115.5	-3098.3	-3075.0	-3225.3	-3218.2	-3213.8	-3215.5	-3323.9	-3379.9

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

Cashflow including land purchase costs, excluding MD profit and finance	Total
Total Revenue	£16,490 m
Total Costs	£7,218 m
Balance per annum	£9,273 m
Balance Cumulative	
IRR (UNGEARED)	6.7%

	55/56	60/61	65/66	70/71	75/76	80/81
Yr34	Yr35	Yr36	Yr37	Yr38	Yr39	Yr40
105.8	154.1	114.4	119.0	123.7	139.0	133.8
141.4	93.0	61.3	73.7	61.9	57.6	71.1
-35.6	61.2	53.1	45.2	61.8	81.4	62.7
-264.3	-203.1	-150.0	-104.8	-43.0	38.4	101.1

VIABILITY WORKSHEET : BASELINE APPRAISAL

Colchester Braintree Borders Garden Community

DEVELOPMENT PHASING

Phasing & Trajectories	Total
Cumulative Housing completions	21,000
Cumulative Commercial floorspace	388,440 sqm

LAND SALES & RETURNS

Land Disposal (Hectares per year)	Total
Residential (Private Type 1)	395 ha
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	102 ha
Residential (Affordable Type 2)	68 ha
Residential (Affordable Type 3)	
Employment B1/offices	26 ha
Employment B2/B8	26 ha
Mixed Use	20 ha
Total all ha (developable residential & commercial areas)	635 ha
Total all ha (non developable & other areas)	(Pro rata) 535 ha

Land Sales Returns (£ per year)	Total
Residential (Private Type 1)	£15,319 m
Residential (Private Type 2)	
Residential (Private Type 3)	
Residential (Affordable Type 1)	£167 m
Residential (Affordable Type 2)	£1,529 m
Residential (Affordable Type 3)	
Employment B1/offices	
Employment B2/B8	£85 m
Mixed Use	£594 m
Sub Total	£17,694 m

Less Sales Related Fees	Rate	Total
Stamp Duty Land Tax	5.3%	£938 m
Agent	1.0%	£177 m
Legal Fees	0.5%	£88 m
Sub Total Sales related fees		£1,203 m

Total all Land Sales & Returns (net of fees) £16,490 m

INFRASTRUCTURE COSTS

Scheme Wide Enabling Works	Total
- Based upon generic allowance per residential unit	£390.0 m
Scheme Wide Community Infrastructure	Total
Education facilities	£172.2 m
Community, Health & Well Being	£36.1 m
Open Space	£56.4 m
Environmental / sustainability / waste	£10.5 m
Scheme Wide Other Itemised Infrastructure	Total
Utilities: Energy -New 2 x 125 MVA Primary Sub Stations	£22.9 m
Utilities: Energy - 12km 132kV Overhead line connection	£12.3 m
Utilities: Electricity Diversion Works	£3.7 m
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m
Utilities: Waste Water - upgrade to water course discharges / surface water	£2.2 m
Utilities: Waste Water - 13km connection to existing works	£13.3 m
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£6.1 m
Utilities: Telecoms - Access chambers for fibre network & associated costs	£5.8 m
Transport (CBB1): Marks Tey rail station & highways improvements	£25.8 m
Transport (CBB2): Additional Bridges & connectivity across railway	£30.2 m
Transport (CBB3): New junction with A12 & associated highways	£41.3 m
Transport (CBB4): A12 realignment works (beyond core scheme)	£62.1 m
Transport (CBB5): A12 Kelvedon capacity & junction signalisation	£20.9 m
Transport (CBB7): Provision of RTS on site (excluding interchanges)	£26.6 m
Transport (CBB8): Provision of wider RTS network off site	£32.4 m
Transport (CBB9): Park & Ride & RTS interchanges	£6.0 m
Transport (CBB10): Active Modes links & wider pedestrian/cycle improvements	£3.1 m

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
16,950	17,250	17,550	17,850	18,150	18,450	18,750	19,050	19,350	19,650	19,950	20,250	20,550	20,850	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
321,500	326,000	330,500	335,000	342,000	346,500	351,000	355,500	360,500	374,000	378,500	383,000	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440	388,440

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8								
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7									
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5									
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2											
0.6				0.6				2.4				0.6											
9.4	8.8	8.8	8.8	9.4	8.8	8.8	8.8	11.2	8.8	8.8	8.8	9.2	8.1	4.0									
7.9	7.4	7.4	7.4	7.9	7.4	7.4	7.4	9.4	7.4	7.4	7.4	7.7	6.8	3.4									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
370.7	385.5	401.0	417.0	433.7	451.0	469.1	487.8	507.4	527.6	548.8	570.7	593.5	617.3	321.0									
4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3	5.5	5.8	6.0	6.2	6.5	6.7	3.5									
37.0	38.5	40.0	41.6	43.3	45.0	46.8	48.7	50.6	52.7	54.8	57.0	59.2	61.6	32.0									
2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.2	3.3	3.4	2.3											
33.2				38.9				174.0				53.2											
447.2	430.5	447.8	465.7	523.2	503.7	523.8	544.8	740.5	589.2	612.8	637.3	714.7	685.6	356.5									

Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
23.7	22.8	23.7	24.7	27.7	26.7	27.8	28.9	39.2	31.2	32.5	33.8	37.9	36.3	18.9									
4.5	4.3	4.5	4.7	5.2	5.0	5.2	5.4	7.4	5.9	6.1	6.4	7.1	6.9	3.6									
2.2	2.2	2.2	2.3	2.6	2.5	2.6	2.7	3.7	2.9	3.1	3.2	3.6	3.4	1.8									
30.4	29.3	30.4	31.7	35.6	34.3	35.6	37.0	50.4	40.1	41.7	43.3	48.6	46.6	24.2									

416.8 401.3 417.3 434.0 487.6 469.4 488.2 507.7 690.2 549.2 571.1 594.0 666.1 639.0 332.3

85/86		90/91					95/96					100/101					105/106				
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Yr67	Yr68	Yr69	Yr70	Yr71	Yr72	Yr73	Yr74	Yr75	Yr76	Yr77	Yr78	Yr79	Yr80	Yr81	Yr82	Yr83	Yr84	Yr85	Yr86	Yr87	Yr88	Yr89	Yr90
5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	2.8									
1.2			4.0	3.5	1.2			1.2		4.0	3.6			1.2									
		2.5				2.5				1.6													
0.2	0.2	0.2	0.2	0.2					2.0					2.4									
0.1	0.1	0.1	0.1	0.1																			

6. Tendring Colchester Borders Garden Community: Assumptions & Cashflows

WORKSHEET 1: LANDUSE ASSUMPTIONS

Tendring Colchester Borders

Total Site		
Total Gross Site Area	424	hectares

Split By Use		
Residential	46.2%	196 ha
Open Space (strategic, formal & informal)	34.2%	145 ha
Infrastructure (incl roads, utilities, community facilities)	12%	50 ha
Employment B1 /Offices	2.8%	12 ha
Employment B2 B8 / Industrial	2.8%	12 ha
Mixed Use	2.2%	9 ha
Check	100.0%	424 ha

Total Residential Units		
Average dwellings per hectare	38.3	dph
Total Dwelling Units	7,500	dwellings
Residential floorspace average per hectare	3,599	sqm / ha
Residential floorspace average per acre	15,664	sq ft / acre

Total Population		
Average Household size	2.4	per unit
Total Population	18,000	residents

Housing Tenure			
Overall Percentage Private Units		70%	
Of which:	Private Type 1	100%	private sale
	Private Type 2		User to define
	Private Type 3		User to define

Overall Percentage Affordable Units		30%	
Of which:	AH Type 1	60%	Affordable Rent
	AH Type 2	40%	Intermediate
	AH Type 3		

Commercial Floorspace				
Use	Total Ha	Plot Density	Storeys	Sqm (gross)
Employment B1 /Offices	12	40%	2	94,976
Employment B2 B8 / Industrial	12	40%	1	47,488
Mixed Use	9	40%	1	37,312
Total all commercial	33			179,776

WORKSHEET 2: SCHEME WIDE COST ASSUMPTIONS

Tendring Colchester Borders

SCHEME WIDE ENABLING WORKS

Physical Costs: Site Preparation & Enabling Costs	Unit/cost	Total	Type
- Based upon generic cost per residential unit	£18,485	£138.6 m	Enabling
Sub Total		£138.6 m	

SCHEME WIDE COMMUNITY INFRASTRUCTURE

On Site: Core Social Infrastructure	Cost per unit	Total	Type
Education	£8,700	£65.3 m	Obligation
Community, Health & Well Being	£1,736	£13.0 m	Obligation
Open Space	£2,688	£20.2 m	Obligation
Environmental / sustainability / waste	£500	£3.8 m	Obligation
Sub Total	£13,624	£102.2 m	

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

Items	Total	Type
Utilities: Energy - Connection to Primary Sub Station	£9.2 m	Enabling
Utilities: Energy - Electricity diversion	£1.5 m	Enabling
Utilities: Potable Water - connection to closest feasible source with capacity	£4.1 m	Enabling
Utilities: Potable Water - lowering water main at site entrance	£0.2 m	Enabling
Utilities: Waste Water - upgrade to water course discharges / surface water	£1.0 m	Enabling
Utilities: Waste Water - connection to existing works	£5.3 m	Enabling
Utilities: Gas - Upgrade to low pressure gas mains & other related costs	£3.4 m	Enabling
Utilities: Telecoms - Access chambers for fibre optic network & associated costs	£2.4 m	Enabling
Transport TCB1 - A120-A133 Link Rd	£41.0 m	Obligation
Transport TCB2: A133 improvements & site accesses	£5.0 m	Obligation
Transport TCB3: Wider highways improvements	£3.0 m	Obligation
Transport: TCB4: RTS - on site network	£10.6 m	Obligation
Transport TCB5: RTS - off site network	£38.1 m	Obligation
Transport TCB6: Park & Ride & RTS Interchange facilities	£6.0 m	Obligation
Transport TCB7: New active modes connections	£5.0 m	Obligation
		Obligation
		Obligation
Sub Total	£135.8 m	

Other Items	Total	Type
Transport TCB8: Travel plan measures	£3.7 m	Obligation
Transport TCB9: Investment in early phase public transport	£3.7 m	Obligation
Other: Long term stewardship endowment	£15.7 m	Obligation
Other: Funding for employment & economic development activities	£7.5 m	Obligation
		Obligation
		Obligation
Sub Total	£30.6 m	

SUMMARY ALL INFRASTRUCTURE

Summary of infra costs (excluding fees, finance & contingencie	Per Unit	Total
Sub Total All Enabling Costs	£22,098	£165.7m
Sub Total All Planning Obligations	£32,197	£241.5m
Total (excluding fees, contingencies & inflation)	£54,296	£407.2m
Total (including fees, contingencies and inflation)	<i>£64,591</i>	<i>£484.4m</i>

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

Professional Fees & Other Costs	Amount	Total
Strategic Planning Costs (masterplanning & approvals) - per unit	£250	£1.9 m
Scheme Year first Strategic Planning Costs accrue	3	(Year)
Number of years Strategic Planning Costs applicable	3	(Years spread)
Professional Fees (design & delivery of scheme wide works)	10.0%	£37.7 m
Stamp Duty Land Tax (on land sales)	5.3%	(on value)
Agent Fees (on land sales)	1.0%	(on value)
Legal Fees (on land sales)	0.5%	(on value)

MASTER DEVELOPER / LDV RETURN

Allowance for master-developer/LDV/infra contractor profit	Amount	Total
Masterdeveloper / LDV / infrastructure contractor profit rate	15.0%	£56.5m

CONTINGENCIES

Contingencies by Type	Amount	Total
Scheme Wide Enabling Works	10.0%	£13.9 m
Scheme Wide Community Infrastructure	10.0%	£10.2 m
Scheme Wide Other Itemised Infrastructure	10.0%	£13.6 m
Other Items		

On Plot: Constructions Costs	3.0%	(on plot calc)
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SCHEME WIDE DISCOUNT RATE, FINANCE & MIRR ASSUMPTIONS

Contingencies by Type	Amount	Total
Discount Rate (for use in NPV calculations, pre finance costs)	2.5%	
General Finance Rate (For Baseline Appraisal)	6.0%	per annum
% of Scheme Wide Costs debt financed	100.0%	
Finance Rate (For MIRR calculation)	6.0%	per annum
Reinvest rate (For MIRR calculation)	6.0%	per annum

INFLATION

Type	Amount	Total
Cost inflation: On scheme wide costs		per annum
Cost inflation: On plot based build costs		per annum
Value inflation: On plot based building capital values		per annum

Assumptions adjusted to reflect specific scenario:

- Contingency at either 10%, 20% or 40%
- Inflation on cost and value

WORKSHEET 3: SITE BASED COST & VALUE ASSUMPTIONS

Tendring Colchester Borders

RESIDENTIAL	
Unit Size	(sq m)
Capital value	(per sq m)
Build cost	(per sq m)

Sales related fees	
Profit on sales (to plot developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)

Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for site based works)	(on build cost)
Percentage of cost subject to finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

COMMERCIAL	
Assumed rent	(per sqm)
Assumed Yield	
Equivalent Capital Value	(per sq m)
Build cost	(per sq m)

Sales related fees	
Profit on sales (to site developer)	(on sales value)
Sales fees	(on sales value)
Legal fees	(on sales value)
Marketing costs	(on sales value)

Other costs	
External works & estate roads	(on build cost)
Professional fees	(on build cost)
Finance Rate (for plot based works)	(on build cost)
Percentage of cost as debt for finance charges	
Community Infrastructure Levy Rate	(£ per sq m)
Equivalent Land value	(£ per ha)

Private Type 1	Private Type 2	Private Type 3
private sale	User to define	User to define
100	100	100
£3,568	£3,568	£3,568
£1,281	£1,281	£1,281

15.0%	15.0%	15.0%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
1.0%	1.0%	1.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£5.0m	£5.0m	£5.0m

B1 / Offices	B2, B8 Industrial	Mixed Use
£175.00	£81.00	£161.50
7.0%	6.0%	6.5%
£2,500	£1,350	£2,485
£1,500.00	£800.00	£759.00

17.5%	17.5%	17.5%
1.0%	1.0%	1.0%
0.5%	0.5%	0.5%
2.0%	2.0%	2.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.6m	£0.2m	£4.0m

AH Type 1	AH Type 2	AH Type 3
Affordable Rent	Intermediate	0
80	80	80
£1,784	£2,676	£2,854
£1,281	£1,281	£1,281

6.0%	6.0%	6.0%
		1.0%
0.5%	0.5%	0.5%
		1.0%

10.0%	10.0%	10.0%
8.0%	8.0%	8.0%
6.0%	6.0%	6.0%
100.0%	100.0%	100.0%
£0.2m	£2.9m	£3.3m

← Residential capital value & build cost adjusted for inflation based scenarios

Tendring Colchester Borders Scenario Full Appraisals

Scenario	Worksheet Title
Reference Case with 10% contingencies	TCB 1A REFERENCE C10%
Reference Case with 20% contingencies	TCB 1B REFERENCE C20%
Reference Case with 40% contingencies	TCB 1C REFERENCE C40%
Grant with 10% contingencies	TCB 2A GRANT C10%
Grant with 20% contingencies	TCB 2B GRANT C20%
Grant with 40% contingencies	TCB 2C GRANT C40%
Inflation with 10% contingencies	TCB 3A INFLATION C10%
Inflation with 20% contingencies	TCB 3B INFLATION C20%
Inflation with 40% contingencies	TCB 3C INFLATION C40%

VIABILITY WORKSHEET : BASELINE APPRAISAL

Tending Colchester Borders

Others	
Transport TCB8: Travel plan measures	£3.7 m
Transport TCB9: Investment in early phase public transport	£3.7 m
Other: Long term stewardship endowment	£15.7 m
Other: Funding for employment & economic development activities	£7.5 m

Scheme Wide Cost Inflation factor (if appropriate)	
All Infrastructure Costs Sub Total	£322 m

Professional Fees	Rate	Total
Strategic Planning Costs	10.0%	£1.9m
Professional Fees (on costs excluding 'Others')	10.0%	£29.1m

Master developer / contractor profit	Rate	Total
On infrastructure costs (excluding 'Others')	15.0%	£43.6m

Contingencies	Rate	Total
Scheme Wide Site Enabling Costs	10.0%	£13.9 m
Scheme Wide Community Infrastructure	10.0%	£10.2 m
Scheme Wide Other Itemised	40.0%	£20.0 m
Others		

Total All Costs (infrastructure, fees, profit & contingency)	£440 m
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CASHFLOW BEFORE LAND & FINANCE

Total Revenue	Total
£759 m	
Total Costs	£440 m
Balance per annum	£319 m
Balance Cumulative	

LAND COSTS

Land Purchase (maximum to scheme break even after finance)	Total
Link to phasing of land sales (2 year lead in)	Yes
Total hectares purchased	424.0
Total land purchase costs (max per hectare)	£468,413 /ha
Total land purchase costs (max per acre)	£189,411 /acre

CASHFLOW AFTER LAND & FINANCE

Cashflow after land purchase	Total
Total Revenue	£759 m
Total Costs	£639 m
Balance per annum	£120 m
Balance Cumulative	

Finance Costs	Rate	Total
Total Finance Charges (on carry over)	6.0%	-£118 m
Total Finance Charges (in year, assuming midpoint)	6.0%	-£2 m

Cashflow after land & finance	Total
Balance per annum	£0 m
Balance Cumulative	
IRR (check)	0.0%

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

Cashflow including land purchase costs, excluding MD profit and finance	Total
Total Revenue	£759 m
Total Costs	£595 m
Balance per annum	£164 m
Balance Cumulative	
IRR (UNGEARED)	9.0%

Project Ref: TCB 2C GRANT C40%

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
						0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
						0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
						2.6				2.6				2.6				2.6		2.7
						0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
						1.8	19.8	22.9	18.7	6.3	7.3	12.5	10.3	31.3	24.2	9.3	16.1	9.9	6.3	10.3

						0.6	0.6	0.6												
						0.2	1.7	2.2	1.8	0.6	0.7	0.9	1.0	3.1	2.4	0.9	1.3	0.9	0.6	1.0

						0.3	2.5	3.4	2.7	0.9	1.0	1.4	1.5	4.6	3.5	1.3	1.9	1.4	0.9	1.5

						0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
						0.7	0.8	0.0	0.0	0.0	0.3	0.4	2.0	1.8	0.0	0.3	0.0	0.0	0.4	0.4
						2.8	4.2	5.3		0.4	0.2		2.0		1.2	1.6	1.4		0.4	0.2

						0.6	0.6	3.1	27.7	33.9	29.0	8.3	9.9	15.8	13.7	43.5	32.5	13.2	21.8	14.2
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CASHFLOW BEFORE LAND & FINANCE

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						12.1	14.6	19.4	24.1	38.2	28.9	28.9	28.9	31.2	28.9	28.9	31.2	28.9	28.9	29.0
						0.6	0.6	3.1	27.7	33.9	29.0	8.3	9.9	15.8	13.7	43.5	32.5	13.2	21.8	14.2
						-0.6	-0.6	-3.1	-15.6	-19.3	-9.6	15.8	28.3	13.1	15.2	-14.6	-1.2	15.7	7.2	14.7
						-0.6	-1.3	-4.4	-19.9	-39.3	-48.9	-33.1	-4.8	8.3	23.5	8.8	7.6	23.3	30.4	45.1

LAND COSTS

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						7.4	8.6	11.1	13.5	20.5	15.9	15.9	15.9	17.1	15.9	16.1	16.1	17.3	16.1	16.1
						3.5	4.0	5.2	6.3	9.6	7.4	7.4	7.4	8.0	7.4	7.6	7.6	8.1	7.6	7.6

CASHFLOW AFTER LAND & FINANCE

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						12.1	14.6	19.4	24.1	38.2	28.9	28.9	31.2	28.9	28.9	31.2	28.9	28.9	29.0	29.0
						0.6	4.1	7.2	32.9	40.2	38.6	15.7	17.4	23.3	21.7	51.0	40.0	20.8	29.9	21.8
						-0.6	-4.1	-7.2	-20.7	-25.7	-19.2	8.4	20.8	5.6	7.2	-22.1	-8.8	8.1	-0.9	7.1
						-0.6	-4.7	-11.9	-32.6	-58.3	-77.5	-69.1	-48.3	-42.7	-35.5	-57.6	-66.3	-58.2	-59.2	-52.0

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						0.0	-0.3	-0.7	-2.1	-3.8	-5.2	-5.0	-4.0	-3.9	-3.7	-5.3	-6.1	-6.0	-6.4	-6.4
						0.0	0.0	-0.1	-0.5	-0.6	-0.3		-0.4	0.0		0.2				

Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						-0.6	-4.1	-7.6	-22.0	-28.3	-23.3	3.2	15.9	1.6	3.3	-26.2	-14.1	2.0	-6.7	0.7
						-0.6	-4.8	-12.3	-34.3	-62.6	-85.9	-82.6	-66.8	-65.2	-61.8	-88.1	-102.2	-100.2	-107.0	-106.2

CASHFLOW FOR MASTER-DEVELOPER IRR (UNGEARED)

18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	40/41	45/46	50/51
Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Yr11	Yr12	Yr13	Yr14	Yr15	Yr16	Yr17	Yr18	Yr19	Yr20	Yr21
						12.1	14.6	19.4	24.1	38.2	28.9	28.9	31.2	28.9	28.9	31.2	28.9	28.9	29.0	29.0
						0.6	4.1	6.9	30.4	36.9	35.9	14.9	16.4	21.9	20.2	46.4	36.5	19.5	27.9	20.4
						-0.6	-4.1	-6.9	-18.3	-22.3	-16.5	9.2	21.8	7.0	8.7	-17.5	-5.2	9.4	1.0	8.5
						-0.6	-4.7	-11.6	-29.9	-52.2	-68.7	-59.5	-37.6	-30.6	-21.9	-39.4	-44.7	-35.3	-34.3	-25.7



- Strategic Advice & Strategy Development
- Supporting Projects Through Planning
- Project Management & Governance
- Viability, Funding & Delivery
- Building Capacity & Skills

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