

April 2017

**North Essex Local Plans
(Section 1)
Viability Assessment**

Appendices

Appendices

- 1.0 West of Braintree Assumptions & Appraisal
- 2.0 Colchester Braintree Borders Assumptions & Appraisal
- 2.0 Tendring Colchester Borders Assumptions & Appraisal

Appendix 1: West of Braintree Assumptions & Appraisal

The following worksheets present:

- Land Use breakdown
- Strategic Cost & Other Assumptions
- Site Specific Costs, Values & Assumptions
- Full Scheme Appraisal

The appraisal illustrates the modelling for the following scenario:

- 30% Affordable housing, of which 80% Affordable Rent and 20% Shared Ownership
- 5% Cost uplift (contingency)
- 5% Value uplift (premium over base residential values)

All other appraisals are based upon a constant basis, with amendments to the residential values and cost contingency assumptions.

LANDUSE ASSUMPTIONS

West of Braintree

30% Affordable Housing (80:20 AR:SO)

+ 5% Cost Uplift; +5% Value Uplift

| Total Site | | |
|-----------------------|-----|----------|
| Total Gross Site Area | 486 | hectares |

| Split By Use | | |
|--|--------|--------|
| Residential | 50.0% | 243 ha |
| Open Space (strategic, formal & informal) | 34.0% | 165 ha |
| Infrastructure (incl roads, utilities, community facilities) | 12.5% | 61 ha |
| Employment B1 /Offices | 0.7% | 3 ha |
| Employment B2 B8 / Industrial | 1.0% | 5 ha |
| Retail & Leisure | 1.8% | 9 ha |
| Check | 100.0% | 486 ha |

| Total Residential Units | | |
|--|--------|--------------|
| Average dwellings per hectare | 35 | dph |
| Total Dwelling Units | 8,505 | dwellings |
| Residential floorspace average per hectare | 3,290 | sqm / ha |
| Residential floorspace average per acre | 14,320 | sq ft / acre |

| Total Population | | |
|------------------------|--------|-----------|
| Average Household size | 2.4 | per unit |
| Total Population | 20,412 | 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 | 80% | affordable rent |
| | AH Type 2 | 20% | shared ownership |
| | AH Type 3 | | starter homes |

| Commercial Floorspace | | | | |
|-------------------------------|----------|--------------|---------|-------------|
| Use | Total Ha | Plot Density | Storeys | Sqm (gross) |
| Employment B1 /Offices | 3 | 40% | 2 | 27,216 |
| Employment B2 B8 / Industrial | 5 | 40% | 1 | 19,440 |
| Retail & Leisure | 9 | 40% | 1 | 34,992 |
| Total all commercial | 17 | | | 81,648 |

| Total Jobs* | | | | |
|-------------------------------|-------------|--------------|-------------|------------|
| Use | Sqm (gross) | Net to gross | Sqm per job | Total jobs |
| Employment B1 /Offices | 27,216 | 80% | 20 | 1,089 |
| Employment B2 B8 / Industrial | 19,440 | 80% | 50 | 311 |
| Retail & Leisure | 34,992 | 80% | 15 | 1,866 |
| Total all commercial | | | | 3,266 |

*Note additional jobs would be created in community facilities & through construction activity

SCHEME WIDE COST ASSUMPTIONS

30% Affordable Housing (80:20 AR:SO)

West of Braintree

+ 5% Cost Uplift; +5% Value Uplift

SCHEME WIDE ENABLING WORKS

| Physical Costs: Site Preparation & Enabling Costs | | Unit/cost | Total | Type |
|---|--|-----------|-----------------|----------|
| - Based upon generic cost per residential unit | | £20,000 | £170.1 m | Enabling |
| Sub Total | | | £170.1 m | |

SCHEME WIDE COMMUNITY INFRASTRUCTURE

| On Site: Core Social Infrastructure | Cost per unit | Total | Type |
|--|---------------|----------------|-----------------|
| Education | £9,000 | £76.5 m | Obligation |
| Community & Health | £2,250 | £19.1 m | Obligation |
| Open Spaces, Leisure & Sports | £2,750 | £23.4 m | Obligation |
| Environmental / sustainability / waste | £500 | £4.3 m | Obligation |
| Sub Total | | £14,500 | £123.3 m |

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

| On Site | Total | Type |
|--|---------|----------------|
| Country Park landscaping | £5.0 m | Obligation |
| A4 Shalford Rd / Pods Lane Quietway | £0.3 m | Obligation |
| PT5 Rapid Transit & Flagship Cycle Route | £5.0 m | Obligation |
| PT7 Transit Hub | £6.0 m | Obligation |
| Travel plan measures (@ £1500/unit) | £13.0 m | Enabling |
| Employment Support (@ £1,000/unit) | £8.5 m | Obligation |
| Sub Total | | £37.8 m |

| Off Site | Total | Type |
|---|---------|----------------|
| Utilities - Primary Substations, gas & telecoms | £13.0 m | Enabling |
| Utilities - 5km trunk mains, discharge upgrade & 6km connection to WWTW | £9.0 m | Enabling |
| Active Modes A1, A2, A3 & A4 (cycleway improvements) | £6.7 m | Obligation |
| PT4 - A131/A130 Bus Lane | £8.0 m | Obligation |
| PT6 - Rapid Transit & Flagship Cycle route NW Braintree | £6.0 m | Obligation |
| R2 & R3 A120/B1256 Improvements (Interim & Final) | £15.0 m | Obligation |
| R1 - A120/B1256 New Western Junction | £7.0 m | Obligation |
| Contrib to strategic Public Transport solutions (@ £1,500 per unit) | £13.0 m | Obligation |
| Sub Total | | £77.7 m |

| Management & Long Term Governance | Total | Type |
|-----------------------------------|---------|----------------|
| Open space endowments | £30.0 m | Obligation |
| Sub Total | | £30.0 m |

| Land Assembly | Total |
|---------------|-------|
| | |

SUMMARY ALL INFRASTRUCTURE

| Summary of infra costs (excluding fees, finance & contingencies) | Per Unit | Total |
|--|----------------|----------------|
| Sub Total All Enabling Costs | £24,115 | £205.1m |
| Sub Total All Planning Obligations | £27,486 | £233.8m |
| Total | £51,602 | £438.9m |

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

| Professional Fees & Other Costs | Amount | Total |
|--|--------|----------------|
| Strategic Planning Costs (masterplanning & approvals) - per unit | £400 | £3.4 m |
| Scheme Year first Strategic Planning Costs accrue | 5 | (Year) |
| Number of years Strategic Planning Costs applicable | 3 | (Years spread) |
| Professional Fees (design & delivery of scheme wide works) | 6.0% | £24.5 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% | (on cost) |

CONTINGENCIES

| Contingencies by Type | Amount | Total |
|--|--------|--------|
| Scheme Wide Community Infrastructure | 5.0% | £6.2 m |
| Scheme Wide Other Itemised Infrastructure - On Site | 5.0% | £1.9 m |
| Scheme Wide Other Itemised Infrastructure - Off Site | 5.0% | £3.9 m |
| Scheme Wide Enabling Works | 5.0% | £8.5 m |

| | |
|------------------------------|----------------|
| On Plot: Constructions Costs | (on plot calc) |
|------------------------------|----------------|

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 anum |
| % of Scheme Wide Costs debt financed | 100.0% | |
| Finance Rate (For MIRR calculation) | 6.0% | per anum |
| Reinvest rate (For MIRR calculation) | 6.0% | per anum |

INFLATION

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

SITE BASED COST & VALUE ASSUMPTIONS

30% Affordable Housing (80:20 AR:SO)

West of Braintree

+ 5% Cost Uplift; +5% Value Uplift

| 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 | User to define | User to define |
| 100 | 100 | 100 |
| £3,843 | £3,843 | £3,843 |
| £1,167 | £1,167 | £1,167 |
| 20.0% | 20.0% | 20.0% |
| 1.0% | 1.0% | 1.0% |
| 0.5% | 0.5% | 0.5% |
| 1.0% | 1.0% | 1.0% |
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £5.2m | £5.2m | £5.2m |

| AH Type 1 | AH Type 2 | AH Type 3 |
|-----------------|------------------|---------------|
| affordable rent | shared ownership | starter homes |
| 80 | 80 | 80 |
| £1,921 | £2,882 | £3,074 |
| £1,167 | £1,167 | £1,167 |
| 6.0% | 6.0% | 10.0% |
| | | 1.0% |
| 0.5% | 0.5% | 0.5% |
| | | 1.0% |
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £0.8m | £3.3m | £3.3m |

| 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 | Retail/Leisure |
|--------------|-------------------|----------------|
| | £81.00 | £161.00 |
| 7.0% | 6.0% | 6.5% |
| £0 | £1,350 | £2,477 |
| | £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 | £0.3m | £4.1m |

Appendix 2: Colchester Braintree Borders Assumptions & Appraisal

The following worksheets present:

- Land Use breakdown
- Strategic Cost & Other Assumptions
- Site Specific Costs, Values & Assumptions
- Full Scheme Appraisal

The appraisal illustrates the modelling for the following scenario:

- 30% Affordable housing, of which 80% Affordable Rent and 20% Shared Ownership
- 5% Cost uplift (contingency)
- 5% Value uplift (premium over base residential values)

All other appraisals are based upon a constant basis, with amendments to the residential values and cost contingency assumptions.

LANDUSE ASSUMPTIONS

Colchester Braintree Borders

30% Affordable Housing (80:20 AR:SO)

+ 5% Cost Uplift; +5% Value Uplift

| Total Site | | |
|-----------------------|-------|----------|
| Total Gross Site Area | 1,300 | hectares |

| Split By Use | | |
|--|--------|---------|
| Residential | 52.0% | 676 ha |
| Open Space (strategic, formal & informal) | 26.5% | 345 ha |
| Infrastructure (incl roads, utilities, community facilities) | 15.0% | 195 ha |
| Employment B1 /Offices | 0.5% | 7 ha |
| Employment B2 B8 / Industrial | 2.5% | 33 ha |
| Retail & Leisure | 3.5% | 46 ha |
| Check | 100.0% | 1300 ha |

| Total Residential Units | | |
|--|--------|--------------|
| Average dwellings per hectare | 35 | dph |
| Total Dwelling Units | 23,660 | dwellings |
| Residential floorspace average per hectare | 3,290 | sqm / ha |
| Residential floorspace average per acre | 14,320 | sq ft / acre |

| Total Population | | |
|------------------------|--------|-----------|
| Average Household size | 2.4 | per unit |
| Total Population | 56,784 | 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 | 80% | affordable rent |
| | AH Type 2 | 20% | shared ownership |
| | AH Type 3 | | starter homes |

| Commercial Floorspace | | | | |
|-------------------------------|-----------|--------------|---------|-------------|
| Use | Total Ha | Plot Density | Storeys | Sqm (gross) |
| Employment B1 /Offices | 7 | 40% | 2 | 52,000 |
| Employment B2 B8 / Industrial | 33 | 40% | 1 | 130,000 |
| Retail & Leisure | 46 | 40% | 1 | 182,000 |
| Total all commercial | 85 | | | 364,000 |

| Total Jobs* | | | | |
|-------------------------------|-------------|--------------|-------------|------------|
| Use | Sqm (gross) | Net to gross | Sqm per job | Total jobs |
| Employment B1 /Offices | 52,000 | 80% | 20 | 2,080 |
| Employment B2 B8 / Industrial | 130,000 | 80% | 50 | 2,080 |
| Retail & Leisure | 182,000 | 80% | 15 | 9,707 |
| Total all commercial | | | | 13,867 |

*Note additional jobs would be created in community facilities & through construction activity

SCHEME WIDE COST ASSUMPTIONS

Colchester Braintree Borders

30% Affordable Housing (80:20 AR:SO)

+ 5% Cost Uplift; +5% Value Uplift

SCHEME WIDE ENABLING WORKS

| Physical Costs: Site Preparation & Enabling Costs | Unit/cost | Total | Type |
|---|-----------|-----------------|----------|
| - Based upon generic cost per residential unit | £20,000 | £473.2 m | Enabling |
| Sub Total | | £473.2 m | |

SCHEME WIDE COMMUNITY INFRASTRUCTURE

| On Site: Core Social Infrastructure | Cost per unit | Total | Type |
|--|----------------|-----------------|------------|
| Education | £9,000 | £212.9 m | Obligation |
| Community & Health | £2,250 | £53.2 m | Obligation |
| Open Spaces, Leisure & Sports | £2,750 | £65.1 m | Obligation |
| Environmental / sustainability / waste | £500 | £11.8 m | Obligation |
| Sub Total | £14,500 | £343.1 m | |

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

| On Site | Total | Type |
|--|-----------------|------------|
| Country Park | £5.0 m | Obligation |
| A3 - Active Modes link (Church Lane - Marks Tey station) | £0.4 m | Obligation |
| PT1a - Rapid Transit Loop (Bus only Roads) | £42.5 m | Obligation |
| PT2 - Park & Ride | £4.2 m | Obligation |
| PT3 - West Tey Railway Station | £50.0 m | Obligation |
| PT4 - West Tey Transit Hub | £6.0 m | Obligation |
| Travel plan measures (@ £1500/unit) | £36.0 m | Obligation |
| Employment support (@ £750/unit) | £18.0 m | Obligation |
| Sub Total | £162.1 m | |

| Off Site | Total | Type |
|---|-----------------|------------|
| Utilities - Elec sub stations, gas supply & telecoms | £30.0 m | Enabling |
| Utilities - potable & waste water | £12.0 m | Enabling |
| A2 & A4 - Active Modes Connections to Rural Hinterland, Cycle Links | £1.5 m | Obligation |
| PR1 & PR 2- Marks Tey Station and junction package & Stane St reduction | £9.0 m | Obligation |
| R2 - A12 Southern junction with Garden Community | £41.5 m | Obligation |
| Contribution to A120 (@ £1,500 per unit) | £36.0 m | Obligation |
| Contribution to Rapid Transit system (@ £1000 per unit) | £24.0 m | Obligation |
| Sub Total | £154.0 m | |

| Management & Long Term Governance | Total | Type |
|-----------------------------------|----------------|------------|
| Open space endowments | £50.0 m | Obligation |
| Sub Total | £50.0 m | |

| Land Assembly | Total |
|---------------|-------|
| | |

SUMMARY ALL INFRASTRUCTURE

| Summary of infra costs (excluding fees, finance & contingencies) | Per Unit | Total |
|--|----------------|-----------------|
| Sub Total All Enabling Costs | £21,775 | £515.2m |
| Sub Total All Planning Obligations | £28,197 | £667.1m |
| Total | £49,972 | £1182.3m |

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

| Professional Fees & Other Costs | Amount | Total |
|--|--------|----------------|
| Strategic Planning Costs (masterplanning & approvals) - per unit | £300 | £7.1 m |
| Scheme Year first Strategic Planning Costs accrue | 6 | (Year) |
| Number of years Strategic Planning Costs applicable | 3 | (Years spread) |
| Professional Fees (design & delivery of scheme wide works) | 6.0% | £67.9 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% | (on cost) |

CONTINGENCIES

| Contingencies by Type | Amount | Total |
|--|--------|---------|
| Scheme Wide Community Infrastructure | 5.0% | £17.2 m |
| Scheme Wide Other Itemised Infrastructure - On Site | 5.0% | £8.1 m |
| Scheme Wide Other Itemised Infrastructure - Off Site | 5.0% | £7.7 m |
| Scheme Wide Enabling Works | 5.0% | £23.7 m |

| | | |
|------------------------------|--|----------------|
| On Plot: Constructions Costs | | (on plot calc) |
|------------------------------|--|----------------|

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 anum |
| % of Scheme Wide Costs debt financed | 100.0% | |
| Finance Rate (For MIRR calculation) | 6.0% | per anum |
| Reinvest rate (For MIRR calculation) | 6.0% | per anum |

INFLATION

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

SITE BASED COST & VALUE ASSUMPTIONS

30% Affordable Housing (80:20 AR:SO)

Colchester Braintree Borders

+ 5% Cost Uplift; +5% Value Uplift

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

| Private Type 1 | Private Type 2 | Private Type 3 |
|----------------|----------------|----------------|
| private sale | User to define | User to define |
| 100 | 100 | 100 |
| £3,504 | £3,504 | £3,504 |
| £1,167 | £1,167 | £1,167 |

| AH Type 1 | AH Type 2 | AH Type 3 |
|-----------------|------------------|---------------|
| affordable rent | shared ownership | starter homes |
| 80 | 80 | 80 |
| £1,752 | £2,627 | £2,803 |
| £1,167 | £1,167 | £1,167 |

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) |

| | | |
|-------|-------|-------|
| 20.0% | 20.0% | 20.0% |
| 1.0% | 1.0% | 1.0% |
| 0.5% | 0.5% | 0.5% |
| 1.0% | 1.0% | 1.0% |

| | | |
|------|------|-------|
| 6.0% | 6.0% | 10.0% |
| | | 1.0% |
| 0.5% | 0.5% | 0.5% |
| | | 1.0% |

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) |

| | | |
|--------|--------|--------|
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £4.2m | £4.2m | £4.2m |

| | | |
|--------|--------|--------|
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £0.4m | £2.7m | £2.7m |

COMMERCIAL

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

| B1 / Offices | B2, B8 Industrial | Retail/Leisure |
|--------------|-------------------|----------------|
| | £86.00 | £161.50 |
| 7.0% | 6.0% | 6.5% |
| £0 | £1,433 | £2,485 |
| | £804.00 | £759.00 |

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) |

| | | |
|-------|-------|-------|
| 17.5% | 17.5% | 17.5% |
| 1.0% | 1.0% | 1.0% |
| 0.5% | 0.5% | 0.5% |
| 2.0% | 2.0% | 2.0% |

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) |

| | | |
|--------|--------|--------|
| 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 | £0.5m | £4.1m |

Appendix 3: Tendring Colchester Borders Assumptions & Appraisal

The following worksheets present:

- Land Use breakdown
- Strategic Cost & Other Assumptions
- Site Specific Costs, Values & Assumptions
- Full Scheme Appraisal

The appraisal illustrates the modelling for the following scenario:

- 30% Affordable housing, of which 80% Affordable Rent and 20% Shared Ownership
- 5% Cost uplift (contingency)
- 5% Value uplift (premium over base residential values)

All other appraisals are based upon a constant basis, with amendments to the residential values and cost contingency assumptions.

LANDUSE ASSUMPTIONS
Tendring Colchester Borders

30% Affordable Housing (80:20 AR:SO)
+ 5% Cost Uplift; +5% Value Uplift

| Total Site | | |
|-----------------------|-----|----------|
| Total Gross Site Area | 425 | hectares |

| Split By Use | | |
|--|--------|--------|
| Residential | 50.0% | 213 ha |
| Open Space (strategic, formal & informal) | 25.0% | 106 ha |
| Infrastructure (incl roads, utilities, community facilities) | 15.0% | 64 ha |
| Employment B1 /Offices | 2.5% | 11 ha |
| Employment B2 B8 / Industrial | 4.0% | 17 ha |
| Retail & Leisure | 3.5% | 15 ha |
| Check | 100.0% | 425 ha |

| Total Residential Units | | |
|--|--------|--------------|
| Average dwellings per hectare | 37.5 | dph |
| Total Dwelling Units | 7,969 | dwellings |
| Residential floorspace average per hectare | 3,525 | sqm / ha |
| Residential floorspace average per acre | 15,343 | sq ft / acre |

| Total Population | | |
|------------------------|--------|-----------|
| Average Household size | 2.4 | per unit |
| Total Population | 19,126 | 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 | 80% | affordable rent |
| | AH Type 2 | 20% | shared ownership |
| | AH Type 3 | | starter homes |

| Commercial Floorspace | | | | |
|-------------------------------|-----------|--------------|---------|-------------|
| Use | Total Ha | Plot Density | Storeys | Sqm (gross) |
| Employment B1 /Offices | 11 | 25% | 2 | 53,125 |
| Employment B2 B8 / Industrial | 17 | 40% | 1 | 68,000 |
| Retail & Leisure | 15 | 40% | 1 | 59,500 |
| Total all commercial | 43 | | | 180,625 |

| Total Jobs* | | | | |
|-------------------------------|-------------|--------------|-------------|------------|
| Use | Sqm (gross) | Net to gross | Sqm per job | Total jobs |
| Employment B1 /Offices | 53,125 | 80% | 20 | 2,125 |
| Employment B2 B8 / Industrial | 68,000 | 80% | 50 | 1,088 |
| Retail & Leisure | 59,500 | 80% | 15 | 3,173 |
| Total all commercial | | | | 6,386 |

*Note additional jobs would be created in community facilities & through construction activity

SCHEME WIDE COST ASSUMPTIONS

Tendingr Colchester Borders

30% Affordable Housing (80:20 AR:SO)

+ 5% Cost Uplift; +5% Value Uplift

SCHEME WIDE ENABLING WORKS

| Physical Costs: Site Preparation & Enabling Costs | Unit/cost | Total | Type |
|---|-----------|-----------------|----------|
| - Based upon generic cost per residential unit | £20,000 | £159.4 m | Enabling |
| Sub Total | | £159.4 m | |

SCHEME WIDE COMMUNITY INFRASTRUCTURE

| On Site: Core Social Infrastructure | Cost per unit | Total | Type |
|--|----------------|-----------------|------------|
| Education | £9,000 | £71.7 m | Obligation |
| Community & Health | £2,250 | £17.9 m | Obligation |
| Open Spaces, Leisure & Sports | £2,750 | £21.9 m | Obligation |
| Environmental / sustainability / waste | £500 | £4.0 m | Obligation |
| Sub Total | £14,500 | £115.6 m | |

SCHEME WIDE OTHER ITEMISED INFRASTRUCTURE

| On Site | Total | Type |
|---|----------------|------------|
| Country Park (to include A4) | £5.0 m | Obligation |
| Porvision of on site rapid transit & facilities | £30.0 m | Obligation |
| PR1 - A133 Boulevard & Access | £6.0 m | Enabling |
| R1 - A120-A133 Link Road | £8.0 m | Obligation |
| Travel Plan measures (@ £1500 per unit) | £12.0 m | Obligation |
| | | |
| | | |
| Sub Total | £61.0 m | |

| Off Site | Total | Type |
|---|----------------|------------|
| Electricity Primary Substations | £12.0 m | Enabling |
| Potable water 5km trunk mains, waste upgrade & 2.5km connection | £10.0 m | Enabling |
| Gas - upgrade to network, telecoms network | £5.0 m | Enabling |
| Active Modes (A1, A5, A6, A7, A8) | £6.1 m | Enabling |
| PT1 - Rapid Transit (contribution of £750 per unit) | £6.0 m | Enabling |
| R2 A133-B1027/B1028 Link | £1.0 m | Obligation |
| R3 - A137/Bromley Rd Improvements | £4.0 m | Obligation |
| | | |
| Sub Total | £44.1 m | |

| Management & Long Term Governance | Total | Type |
|-----------------------------------|----------------|------------|
| Open space endowments | £23.0 m | Obligation |
| | | |
| Sub Total | £23.0 m | |

| Land Assembly | Total |
|---------------|-------|
| | |

SUMMARY ALL INFRASTRUCTURE

| Summary of infra costs (excluding fees, finance & contingencies) | Per Unit | Total |
|--|----------------|----------------|
| Sub Total All Enabling Costs | £25,659 | £204.5m |
| Sub Total All Planning Obligations | £24,915 | £198.6m |
| Total | £50,575 | £403.0m |

SCHEME WIDE ADDITIONAL COST ASSUMPTIONS

| Professional Fees & Other Costs | Amount | Total |
|--|--------|----------------|
| Strategic Planning Costs (masterplanning & approvals) - per unit | £350 | £2.8 m |
| Scheme Year first Strategic Planning Costs accrue | 5 | (Year) |
| Number of years Strategic Planning Costs applicable | 3 | (Years spread) |
| Professional Fees (design & delivery of scheme wide works) | 6.0% | £22.8 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% | (on cost) |

CONTINGENCIES

| Contingencies by Type | Amount | Total |
|--|--------|--------|
| Scheme Wide Community Infrastructure | 5.0% | £5.8 m |
| Scheme Wide Other Itemised Infrastructure - On Site | 5.0% | £3.1 m |
| Scheme Wide Other Itemised Infrastructure - Off Site | 5.0% | £2.2 m |
| Scheme Wide Enabling Works | 5.0% | £8.0 m |

| | | |
|------------------------------|--|----------------|
| On Plot: Constructions Costs | | (on plot calc) |
|------------------------------|--|----------------|

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 anum |
| % of Scheme Wide Costs debt financed | 100.0% | |
| Finance Rate (For MIRR calculation) | 6.0% | per anum |
| Reinvest rate (For MIRR calculation) | 6.0% | per anum |

INFLATION

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

SITE BASED COST & VALUE ASSUMPTIONS

30% Affordable Housing (80:20 AR:SO)

Tendring Colchester Borders

+ 5% Cost Uplift; +5% Value Uplift

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

| Private Type 1 | Private Type 2 | Private Type 3 |
|----------------|----------------|----------------|
| private sale | User to define | User to define |
| 100 | 100 | 100 |
| £3,390 | £3,390 | £3,390 |
| £1,167 | £1,167 | £1,167 |

| AH Type 1 | AH Type 2 | AH Type 3 |
|-----------------|------------------|---------------|
| affordable rent | shared ownership | starter homes |
| 80 | 80 | 80 |
| £1,695 | £2,543 | £2,712 |
| £1,167 | £1,167 | £1,167 |

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) |

| | | |
|-------|-------|-------|
| 20.0% | 20.0% | 20.0% |
| 1.0% | 1.0% | 1.0% |
| 0.5% | 0.5% | 0.5% |
| 1.0% | 1.0% | 1.0% |

| | | |
|------|------|-------|
| 6.0% | 6.0% | 15.0% |
| | | 1.0% |
| 0.5% | 0.5% | 0.5% |
| | | 1.0% |

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) |

| | | |
|--------|--------|--------|
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £4.2m | £4.2m | £4.2m |

| | | |
|--------|--------|--------|
| 15.0% | 15.0% | 15.0% |
| 8.0% | 8.0% | 8.0% |
| 6.0% | 6.0% | 6.0% |
| 100.0% | 100.0% | 100.0% |
| | | |
| £0.2m | £2.6m | £2.2m |

COMMERCIAL

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

| B1 / Offices | B2, B8 Industrial | Retail/Leisure |
|--------------|-------------------|----------------|
| £175.00 | £75.00 | £165.00 |
| 7.0% | 6.5% | 6.5% |
| £2,500 | £1,154 | £2,538 |
| £1,500.00 | £645.00 | £1,000.00 |

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) |

| | | |
|-------|-------|-------|
| 17.5% | 17.5% | 17.5% |
| 1.0% | 1.0% | 1.0% |
| 0.5% | 0.5% | 0.5% |
| 2.0% | 2.0% | 2.0% |

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) |

| | | |
|--------|--------|--------|
| 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 | £0.4m | £3.1m |

