



LOCAL PLAN AND COMMUNITY INFRASTRUCTURE LEVY ECONOMIC VIABILITY STUDY

Wirral Borough Council

CONSTRUCTION COST ASSESSMENTS

1 Introduction

Tweeds have supported Keppie Massie with their work for Wirral Borough Council in respect of development viability assessments for a number of types of development in order to test Local Plan viability and consider the future application of a Community Infrastructure Levy.

Tweed's work has been in respect of the construction costs of the different types of development anticipated and tested and this report details the methodology adopted and gives summaries of the construction cost data prepared.

The developments have been divided into two basic categories: residential and non- residential. These are considered separately.

2 Residential developments

2.1 Range of developments

Residential developments have been split into three categories based on development density and within each several different sizes of development have been used, based on the normal policy requirements of Wirral Borough Council and for each of these a typical level of specification has been costed. The densities adopted have been allocated to both green and brownfield sites as follows

20 dwellings/hectare

30 dwellings/hectare

50 dwellings/hectare

Net site areas have been derived for each development typology based on the assumed densities as follows:

Scheme	Dwelling No	20 dph	30 dph	50 dph
1	2 No	1,000 m ²	N/A	N/A
2	4 No	2,000 m ²	1,333 m ²	800 m ²
3	10 No	5,000 m ²	3,333 m ²	2,000 m ²
4	25 No	12,500 m ²	8,333 m ²	5,000 m ²
5	50 No	25,000 m ²	16,666 m ²	10,000m ²
6	100 No	50,000 m ²	33,333 m ²	20,000 m ²
7	250 No	N/A	83,333 m ²	50,500 m ²
8	500 No	N/A	166,666 m ²	100,000 m ²
9	750 No	N/A	250,000 m ²	150,000 m ²



A mix of accommodation for each development scenario has been used as follows:

SCHEME	DWELLING TYPES	GFA/DWG	20 DPH		30 DPH		50 DPH	
			NO	GFA	NO	GFA	NO	GFA
Scheme 1 2 dwellings	1b terraced	46 m2	0 No	0 m2	0 No	0 m2	0 No	0 m2
	2b Semi	65 m2	0 No	0 m2	1 No	65 m2	1 No	65 m2
	3B semi	85 m2	0 No	0 m2	1 No	86 m2	1 No	86 m2
	4b detached	116 m2	1 No	116 m2	0 No	0 m2	0 No	0 m2
	5b detached	158 m2	1 No	158 m2	0 No	0 m2	0 No	0 m2
	TOTAL AREA				274 m2		151 m2	
Scheme 2 4 dwellings	1b terraced	46 m2	0 No	0 m2	0 Nr	0 m2	0 Nr	0 m2
	2b Semi	65 m2	0 No	0 m2	1 Nr	65 m2	1 Nr	65 m2
	3B semi	85 m2	0 No	0 m2	2 Nr	172 m2	3 Nr	258 m2
	4b detached	116 m2	2 No	232 m2	1 Nr	116 m2	0 Nr	0 m2
	5b detached	158 m2	1 No	158 m2	0 Nr	0 m2	0 Nr	0 m2
	TOTAL AREA			476 m2		353 m2		323 m2
Scheme 3 10 dwellings	1b terraced	46 m2	0 No	0 m2	0 Nr	0 m2	0 Nr	0 m2
	2b Semi	65 m2	0 No	0 m2	3 Nr	195 m2	4 Nr	260 m2
	3b semi	86 m2	2 No	172 m2	5 Nr	430 m2	6 Nr	516 m2
	4b detached	116 m2	5 No	581 m2	2 Nr	232 m2	0 Nr	0 m2
	5b detached	158 m2	3 No	474 m2	0 Nr	0 m2	0 Nr	0 m2
	TOTAL AREA			1226 m2		857 m2		776 m2
Scheme 4 25 dwellings	1b terraced	46 m2	0 No	0 m2	1 Nr	46 m2	1 Nr	46 m2
	2b Semi	65 m2	0 No	0 m2	8 Nr	520 m2	9 Nr	585 m2
	3b semi	86 m2	5 Nr	430 m2	11 Nr	945 m2	15 Nr	1289 m2
	4b detached	116 m2	13 Nr	1510 m2	4 Nr	465 m2	0 Nr	0 m2
	5b detached	158 m2	7 Nr	1106 m2	1 Nr	158 m2	0 Nr	0 m2
	TOTAL AREA			3045 m2		2134 m2		1921 m2
Scheme 5 50 dwellings	1b terraced	46 m2	0 No	0 m2	2 Nr	93 m2	2 Nr	93 m2
	2b Semi	65 m2	0 No	0 m2	15 Nr	975 m2	18 Nr	1171 m2
	3b semi	86 m2	10 Nr	859 m2	23 Nr	1977 m2	30 Nr	2578 m2
	4b detached	116 m2	25 Nr	2903 m2	7 Nr	813 m2	0 Nr	0 m2
	5b detached	158 m2	15 Nr	2369 m2	3 Nr	474 m2	0 Nr	0 m2
	TOTAL AREA			6132 m2		4332 m2		3842 m2
Scheme 6 100 dwellings	1b terraced	46 m2	0 No	0 m2	5 Nr	232 m2	5 Nr	232 m2
	2b Semi	65 m2	0 No	0 m2	30 Nr	1951 m2	35 Nr	232 m2
	3b semi	86 m2	10 No	1719 m2	45 Nr	3867 m2	60 Nr	2276 m2
	4b detached	116 m2	50 No	5807 m2	15 Nr	1742 m2	0 Nr	5156 m2
	5b detached	158 m2	100 No	4738 m2	5 Nr	790 m2	0 Nr	0 m2
	TOTAL AREA			12264m2		8582 m2		7665 m2
Scheme 7 250 dwellings	1b mews	46 m2	0 No	0 m2	12 Nr	557 m2	12 Nr	557 m2
	2b semi	65 m2	0 No	0 m2	75 Nr	4877 m2	88 Nr	5723 m2
	3b semi	86 m2	0 No	0 m2	113 Nr	9711 m2	150 Nr	12891 m2
	4b detached	116 m2	0 No	0 m2	37 Nr	4297 m2	0 Nr	0 m2
	5b detached	158 m2	0 No	0 m2	13 Nr	2053 m2	0 Nr	0 m2
	TOTAL AREA			N/A		21496 m2		19171 m2



Scheme 8 500 dwellings	1b mews	46 m ²	0 No	0 m ²	25 Nr	1161 m ²	25 Nr	1161 m ²
	2b semi	65 m ²	0 No	0 m ²	150 Nr	9755 m ²	175 Nr	11380 m ²
	3b semi	86 m ²	0 No	0 m ²	225 Nr	19337 m ²	300 Nr	25782 m ²
	4b detached	116 m ²	0 No	0 m ²	75 Nr	8710 m ²	0 Nr	0 m ²
	5b detached	158 m ²	0 No	0 m ²	25 Nr	3949 m ²	0 Nr	0 m ²
	TOTAL AREA			0 m ²		42911 m ²		38324 m ²
Scheme 9 750 dwellings	1b mews	46 m ²	0 No	0 m ²	46 m ²	1765 m ²	37 Nr	1719 m ²
	2b semi	65 m ²	0 No	0 m ²	65 m ²	14632 m ²	263 Nr	17103 m ²
	3b semi	86 m ²	0 No	0 m ²	86 m ²	28876 m ²	450 Nr	38673 m ²
	4b detached	116 m ²	0 No	0 m ²	116 m ²	13123 m ²	0 Nr	0 m ²
	5b detached	158 m ²	0 No	0 m ²	158 m ²	6002 m ²	0 Nr	0 m ²
	TOTAL AREA			0 m ²		64406 m ²		57495 m ²

The construction cost assessments for each development scenario are shown in tabulated form in Appendix A.

Also costed are two different sizes of development of new build flats. We have also considered typical costs associated the conversion of existing buildings to flats. We have assessed costs for three different sizes of conversion, although it should be noted that every conversion scheme will have its own specific characteristics particularly in terms of the condition and internal arrangement of the building and hence there is a wide range of possible cost options.

The table below summaries the apartment and conversion development typologies that we have assessed.

10 Nr New flats on 2 floors (without a lift) 1B Flats, 3 No 67 m ² (inc common area) 2B Flats, 7 No 81m ² (inc common area) Total gross floor area 10 No 768 m ²
50 Nr new flats on 3 floors,(including lift 1B Flats, 10 No 66 m ² (inc common area) 2B Flats, 30 No 82m ² (inc common area) 3B Flats, 10 No 117m ² (inc common area) Total gross floor area 50 No 4290m ²
Small conversion forming 3 flats of 70m ² each on 2 floors; total gross floor area 240m ²
Medium conversion forming 6 flats of 70m ² each on 3 floors; total gross floor area 450m ²
Large conversion forming 12 flats of 70m ² each on 3 floors; total gross floor area 900m ²



The costs are shown in tabulated form in Appendices B and C.

2.2 Costing methodology - Houses

Costs for the buildings:

- The dwellings themselves are costed based on their floor area. All dwellings are assumed to have two floors of the same area. The substructure costs that have been adopted are based on a rate per m² that has been applied to the footprint area and are for normal substructures comprising simple strip footings founded at a nominal depth of 1m. Rates per m² are derived from data held by Tweeds based on a large range of housing projects carried out in recent years.
- Superstructure costs have been calculated on a rate per m² basis and applied to the gross internal floor area for each dwelling. These too are derived from data held by Tweeds. Each different floor area has a different rate/m² to reflect the differing costs per m² as the dwelling size varies.

Costs for the external works etc.:

- These are density based following an assessment of plot size from density
- Estate roads and footpaths; area and costs assessed from plot size; include kerbs, street lighting and road drainage. Rates and prices are from our cost data and published data
- Work within curtilage is assessed based on areas derived from the plot size and include boundaries, parking area, paving, grassed and planting areas. Rates and prices are from our cost data and published data
- Drainage and incoming service supplies costs are assessed on a cost / dwelling basis and include plot drainage and an allowance for mains drainage, using typical costs
- Public Open space: costs are based on areas required by Wirral Council. Works will include allowances for grass, trees and future maintenance.

Costs for other matters

- Preliminaries are costed on a cost per week for a period based on the sales rate
- Fees for design, planning etc are based on % of the construction costs
- Adjustment for costs to reflect the size of the development; large developments are more economic than small ones.
- Depending on the site typology costs for abnormal works will be included on the basis of cost/dwelling or cost/m² of the site. These could include allowance for poor ground conditions or similar works or costly site clearance.



- Contingencies are included at 5%
- As profit will be included elsewhere within the viability appraisal, it is not included within construction costs

A number of items are excluded from the overall rate per sq m assessment and are included elsewhere as appropriate by Keppie Massie in preparing the viability assessments. These include

- Costs for abnormals except as stated in relation to previously developed sites, Code for Sustainable Homes and sustainability works, Section 278 works or similar, off-site works and incoming infrastructure.

2.3 Costing methodology – Flats (new Build)

- Generally as for houses.
- Floor areas include common areas
- External areas are assumed based on the areas regarded as necessary per flat
- Exclusions are as houses. In addition the cost assessment for flats does not include estate roads as this form of development is costed on the basis of a 'stand alone' development.

2.4 Costing methodology – Flats (Conversion)

- Assessed on an assumed elemental basis
- Floor areas include common areas
- External areas and drainage are assumed as allowances to allow for new parking and entrance with some garden area.
- Good structural condition and suitability for the conversion is assumed, as is the absence of asbestos, dry rot or similar
- Value Added Tax is included at 20% on all costs
- Exclusions are as houses. In addition the cost assessment for flats does not include estate roads as this form of development is costed on the basis of a 'stand alone' development.



3 Non-residential developments

3.1 Range of developments

A number of different non –residential development types have been costed, as shown in the table below:

Type	Location	Floor area (m2)	Floor area (ft2)	Site area
Offices	Town Centre	464 m2	5,000 ft2	524 m2
Offices	Town Centre	1,857 m2	20,000 ft2	2,098 m2
Offices	Out of Centre	464 m2	5,000 ft2	622 m2
Offices	Out of Centre	1,857 m2	20,000 ft2	2,411 m2
Offices	Out of Centre	4,643 m2	50,000 ft2	6,158 m2
Industrial B2/B8	All areas	464 m2	5,000 ft2	789 m2
Industrial B2/B8	All areas	929 m2	10,000 ft2	1,525 m2
Industrial B2/B8	All areas	1,857 m2	20,000 ft2	3,024 m2
Industrial B2/B8	All areas	4,643 m2	50,000 ft2	7,543 m2
Industrial B2/B8	All areas	13,930 m2	150,000 ft2	22,551 m2
Retail (Food store - Convenience)	Town Centre	279 m2	3,000 ft2	698 m2
Retail (Food store - Convenience)	Out of Centre	279 m2	3,000 ft2	774 m2
Retail (Food store - Convenience)	Out of Centre	929 m2	10,000 ft2	2,782 m2
Retail (Food store - Convenience)	Out of Centre	2,786 m2	30,000 ft2	8,547 m2
Retail (Food store - Convenience)	Out of Centre	4,643 m2	50,000 ft2	14,076 m2
Non food retail (Town Centre)	Town Centre	279 m2	3,000 ft2	348 m2
Non food retail	Out of Centre	929 m2	10,000 ft2	2,246 m2
Non food retail	Out of Centre	2,786 m2	30,000 ft2	6,890 m2
Bingo	All areas	464 m2	5,000 ft2	754 m2
Bowling Alley	All areas	929 m2	10,000 ft2	1,964 m2
Gymnasium	All areas	743 m2	8,000 ft2	1,587 m2
Gymnasium	All areas	1,857 m2	20,000 ft2	4,038 m2
Cinema	All areas	1,857 m2	20,000 ft2	3,432 m2
Hotel	All areas	1,857 m2	20,000 ft2	2,485 m2
Food and Drink (Pub/Restaurant)	Town Centre	697 m2	7,500 ft2	2,777 m2
Food and Drink (Pub/Restaurant)	Out of Town	697 m2	7,500 ft2	4,164 m2
Car Showroom	All areas	929 m2	10,000 ft2	2,158 m2
Recycling Centre	All areas	929 m2	10,000 ft2	3,556 m2
Garden centre	All areas	9,287 m2	100,000 ft2	22,101 m2
Residential Institutional (30 Bed)	All areas	1,672 m2	18,000 ft2	1,582 m2
Nursing Home (30 Bed)	All areas	1,045 m2	11,250 ft2	878 m2



Stables	All areas	139m2	1,500 ft2	350 m2
Equestrian Centre	All areas	464 m2	5,000 ft2	1,138 m2
Agricultural Building	All areas	232 m2	2,500 ft2	251 m2
Rural Industries	All areas	186 m2	2,000 ft2	526 m2

The costs in tabulated form are given in Appendix D.

3.1 Costing methodology

Costs for the buildings:

- Normal substructures and superstructures based on costs per m2 from BCIS for buildings of the same type and comparable size. BCIS data adjusted for location and brought up to date

Costs for the external works etc.:

- Areas based on parking requirements with allowances for circulation and landscaped areas, footpaths etc.

Costs for other matters

- Preliminaries are costed within the costs per m2 derived from BCIS for the buildings.
- Fees for design, planning etc are based on a % of the construction costs
- Contingencies will be included at 5%
- Profit is included within the costs
- Depending on an agreed basis costs for abnormal works will be included on the basis of cost/m2 of the building or cost/m2 of the site. These could include allowance for poor ground conditions or similar works or costly site clearance.



Exclusions

- Costs for abnormals except as stated in relation to previously developed sites, and sustainability works, Section 278 works or similar, off-site works and incoming infrastructure. These matters are dealt with elsewhere in the appraisals by Keppie Massie.

Tweeds



part of the **WYG** group

Appendix A.
Residential Cost Summaries – New Build Houses



CONSTRUCTION COSTS OF RESIDENTIAL DEVELOPMENTS – HOUSES

Summary for density 20 dwellings per hectare			
GREEN FIELD SITE			
	Total Cost	Av Cost per dwelling	Av cost per m2
Scheme 1 2 dwellings	£ 282,566	£ 141,283	£ 1,031
Scheme 2 4 dwellings	£ 496,424	£ 124,106	£ 1,043
Scheme 3 10 dwellings	£ 1,123,752	£ 112,375	£ 916
Scheme 4 25 dwellings	£ 2,592,166	£ 103,687	£ 851
Scheme 5 50 dwellings	£ 4,966,700	£ 99,334	£ 810
Scheme 6 100 dwellings	£ 9,659,722	£ 96,597	£ 788
Scheme 7 250 dwellings	£ 23,428,918	£ 93,716	£ 764
Scheme 8 500 dwellings	£ 46,169,429	£ 92,339	£ 753
Scheme 9 750 dwellings	£ 69,135,217	£ 92,180	£ 752

BROWN FIELD SITE			
	Total Cost	Av Cost per dwelling	Av cost per m2
Scheme 1 2 dwellings	£ 301,670	£ 150,835	£ 1,101
Scheme 2 4 dwellings	£ 529,704	£ 132,426	£ 1,112
Scheme 3 10 dwellings	£ 1,202,132	£ 120,213	£ 980
Scheme 4 25 dwellings	£ 2,780,577	£ 111,223	£ 913
Scheme 5 50 dwellings	£ 5,338,755	£ 106,775	£ 871
Scheme 6 100 dwellings	£ 10,393,126	£ 103,931	£ 847
Scheme 7 250 dwellings	£ 25,226,714	£ 100,907	£ 823
Scheme 8 500 dwellings	£ 49,730,447	£ 99,461	£ 811
Scheme 9 750 dwellings	£ 74,476,744	£ 99,302	£ 810



Summary for density 30 dwellings per hectare			
GREEN FIELD SITE			
	Total Cost	Av Cost per dwelling	Av cost per m2
Scheme 1 2 dwellings	£ 199,726	£ 99,863	£ 1,323
Scheme 2 4 dwellings	£ 409,984	£ 102,496	£ 1,161
Scheme 3 10 dwellings	£ 862,675	£ 86,267	£ 1,007
Scheme 4 25 dwellings	£ 2,033,608	£ 81,344	£ 953
Scheme 5 50 dwellings	£ 3,890,677	£ 77,814	£ 898
Scheme 6 100 dwellings	£ 7,555,654	£ 75,557	£ 880
Scheme 7 250 dwellings	£ 18,407,027	£ 73,628	£ 856
Scheme 8 500 dwellings	£ 36,179,959	£ 72,360	£ 843
Scheme 9 750 dwellings	£ 54,166,211	£ 72,222	£ 841

BROWN FIELD SITE			
	Total Cost	Av Cost per dwelling	Av cost per m2
Scheme 1 2 dwellings	£ 210,733	£ 105,366	£ 1,396
Scheme 2 4 dwellings	£ 434,178	£ 108,545	£ 1,230
Scheme 3 10 dwellings	£ 917,076	£ 91,708	£ 1,070
Scheme 4 25 dwellings	£ 2,167,665	£ 86,707	£ 1,016
Scheme 5 50 dwellings	£ 4,156,962	£ 83,139	£ 960
Scheme 6 100 dwellings	£ 8,099,827	£ 80,998	£ 944
Scheme 7 250 dwellings	£ 19,742,822	£ 78,971	£ 918
Scheme 8 500 dwellings	£ 38,822,174	£ 77,644	£ 905
Scheme 9 750 dwellings	£ 58,130,955	£ 77,508	£ 903



Summary for density 50 dwellings per hectare			
BROWN FIELD SITE			
	Total Cost	Av Cost per dwelling	Av cost per m2
Scheme 1 2 dwellings	£ 204,306	£ 102,153	£ 1,353
Scheme 2 4 dwellings	£ 401,448	£ 100,362	£ 1,243
Scheme 3 10 dwellings	£ 838,734	£ 83,873	£ 1,081
Scheme 4 25 dwellings	£ 1,966,601	£ 78,664	£ 1,024
Scheme 5 50 dwellings	£ 3,726,578	£ 74,532	£ 970
Scheme 6 100 dwellings	£ 7,242,637	£ 72,426	£ 945
Scheme 7 250 dwellings	£ 17,532,838	£ 70,131	£ 915
Scheme 8 500 dwellings	£ 34,660,117	£ 69,320	£ 904
Scheme 9 750 dwellings	£ 51,877,224	£ 69,170	£ 902



Appendix B. Residential Cost Summaries – New Build Flats



Scheme of 10 flats on two floors; infill site off existing roads; no lift

1b flat	3 Nr	56.00 m2	168.00 m2	
2b flat	7 Nr	70.00 m2	490.00 m2	
Average GFA/ unit =			65.80 m2	
Addition for common areas			11.00 m2	
Total GFA			76.80 m2	
<u>Costs for single flat</u>				
Substructures		76.80 m2	£ 72 /m2	£5,530
Superstructures		76.80 m2	£ 649 /m2	£49,843
Total			£ 721 /m2	£55,373
External works				
Adopted roads		0 m2	£ 0 /m2	
Adopted footpath		0 m2	£ 0 /m2	
Road crossing		1 Nr	£2,557	£2,557
Car parking; tarmacadam; 1 space / flat + 60% circulation		21 m2	£ 51 /m2	£1,061
Kerbs, lighting and drainage to above		21 m2	£ 19 /m2	£395
Paving, paths etc; assumed at 12 m2 / flat		12 m2	£ 33 /m2	£396
Grassed area		10 m2	£ 8 /m2	£80
Bin stores		1 Nr	£256	£256
Allowance for fences, railings and gates		1 Nr	£511	£511
Site clearance		83 m2	£ 4.00 /m2	£334
Drainage including attenuation		1 Nr	£2,455	£2,455
Incoming services		1 Nr	£3,836	£3,836
Preliminaries (cost per unit per week)	30 weeks		£384	£11,507
Total Costs of single flat				£78,760
Fees			7.50%	£5,907
Contingencies			5.00%	£4,233
TOTAL FOR SINGLE FLAT				£88,901
Less Contractor's profit and overheads included			-8.50%	-£7,557
TOTAL COSTS FOR SINGLE FLAT				£81,344
SCHEME COST FOR 10 No FLATS				£813,440
Cost/m2				£1,059.17
Site area		901 m2		
Average site area per flat		129 m2		


Scheme of 50 units on three floors including lift; off existing road (no access road included)

	1B	10 Nr		2B	30 Nr		3B	10 Nr		TOTALS
GFA/ unit =	56.00 m2			70.00 m2			102.00 m2			
Addition for common areas (inc lift)	10.00 m2			12.00 m2			15.00 m2			
Total GFA for each type	66.00 m2			82.00 m2			117.00 m2			4290 m2
<u>Costs for single flat</u>										
Substructures	66.00 m2	£ 53 /m2	£3,498	82.00 m2	£ 53 /m2	£4,346	117.00 m2	£ 53 /m2	£6,201	£227,370
Superstructures	66.00 m2	£ 634 /m2	£41,844	82.00 m2	£ 634 /m2	£51,988	117.00 m2	£ 634 /m2	£74,178	£2,719,860
Lift	66.00 m2	£ 9.00 /m2	£594	82.00 m2	£ 9.00 /m2	£738	117.00 m2	£ 9.00 /m2	£1,053	£38,610
Total		£ 696 /m2	£45,936		£ 696 /m2	£57,072		£ 696 /m2	£81,432	£2,985,840
External works										
Adopted roads	15 m2	£ 56 /m2	£840	15 m2	£ 56 /m2	£840	15 m2	£ 56 /m2	£840	£42,000
Adopted footpath	12 m2	£ 36 /m2	£432	12 m2	£ 36 /m2	£432	12 m2	£ 36 /m2	£432	£21,600
Road crossing		£2,557	£0		£2,557	£0		£2,557	£0	£0
Car parking; tarmacadam; 1 space / flat + 60% circulation	21 m2	£ 51 /m2	£1,061	21 m2	£ 51 /m2	£1,061	21 m2	£ 51 /m2	£1,061	£53,040
Kerbs, lighting and drainage to above	21 m2	£ 19 /m2	£395	21 m2	£ 19 /m2	£395	21 m2	£ 19 /m2	£395	£19,760
Paving, paths etc; assumed at 12 m2 / flat	12 m2	£ 33 /m2	£396	12 m2	£ 33 /m2	£396	12 m2	£ 33 /m2	£396	£19,800
Grassed area	10 m2	£ 8 /m2	£80	10 m2	£ 8 /m2	£80	10 m2	£ 8 /m2	£80	£4,000
Bin stores	1 Nr	£256	£256	1 Nr	£256	£256	1 Nr	£256	£256	£12,800
Allowance for fences, railings and gates	1 Nr	£511	£511	1 Nr	£511	£511	1 Nr	£511	£511	£25,550
Site clearance	118 m2	£ 4.00 /m2	£471	118 m2	£ 4.00 /m2	£471	118 m2	£ 4.00 /m2	£471	£23,541
Drainage including attenuation	1 Nr	£2,455	£2,455	1 Nr	£2,455	£2,455	1 Nr	£2,455	£2,455	£122,750
Incoming services	1 Nr	£3,836	£3,836	1 Nr	£3,836	£3,836	1 Nr	£3,836	£3,836	£191,800
Preliminaries (cost per unit per week)	60 weeks	£153	£9,205	60 weeks	£153	£9,205	60 weeks	£153	£9,205	£460,260
Total Costs of single flat carried forward			£65,874			£77,010			£101,370	£3,982,741
Fees		7.00%	£4,611		7.00%	£5,391		7.00%	£7,096	£278,792
Contingencies		5.00%	£3,524		5.00%	£4,120		5.00%	£5,423	£213,077
TOTAL FOR SINGLE FLAT			£74,009			£86,521			£113,889	£4,474,610
Less Contractor's profit and overheads included		-7.50%	-£5,551		-7.50%	-£6,489		-7.50%	-£8,542	-£335,596
TOTAL COSTS FOR SINGLE FLAT			£68,459			£80,032			£105,348	
SCHEME COST FOR 50 No FLATS			£684,588			£2,400,951			£1,053,475	£4,139,014
Cost / m2			£ 1,037 /m2			£ 976 /m2			£ 900 /m2	£ 965 /m2
Site area			6053 m2							
Average area per flat			121 m2							



Appendix C. Residential Cost Summaries – Conversion to Flats



Small Conversion Scheme of 3 flats on three floors

Assumed scheme	Flats; 1 no/floor		70m2 each	
	Common area		10m2/floor	
	Total area		240 m2	
Element	Assumed work			
Demolitions and clearance	Allowance for clearing flats and minor demolitions, cutting opening etc	3 Nr	£1,000.00	£3,000
Substructures	New damp proof course	38 m	£ 75.00	£2,850
	Minor repairs to floor slabs etc	80 m2	£ 15.00	£1,200
Roof	Retile	95 m2	£ 40.00	£3,800
	Allowance for repairs to structure		Item	£1,500
	Roof insulation	80 m2	£ 13.50	£1,080
	New rainwater insulation		Item	£1,500
Upper floors	Allowance for repairs	160 m2	£ 7.50	£1,200
	Acoustic insulation	160 m2	£ 30.00	£4,800
	Fireproofing	160 m2	£ 20.00	£3,200
Staircases	Existing assumed reused - overhaul		Item	£750
	Fire proof soffit		Item	£500
	Improve handrails		Item	£500
External walls	Minor repairs	304 m2	£ 5.00	£1,520
	Repoint 50%	152 m2	£ 20.00	£3,040
Windows	Remove existing	15 Nr	£ 20.00	£300
	New uPVC double glazed windows	15 Nr	£ 600.00	£9,000
External doors	New external entrance door	1 Nr	£ 900.00	£900
	New rear entrance door	1 Nr	£ 500.00	£500
	Entryphone system	3 Nr	£ 350.00	£1,050
Internal walls	Allowance for demolition of existing (part)	3 Nr	£ 250.00	£750
	New lightweight party walls	90 m2	£ 65.00	£5,850
	New stud internal partitions	60 m2	£ 35.00	£2,100
Internal doors	New flat entrance door	3 Nr	£ 500.00	£1,500
	New internal half hour FR doors in flats	18 Nr	£ 200.00	£3,600
	New fire doors in corridors	3 Nr	£ 300.00	£900
Wall finishes	Line internal walls with insulated plasterboard; skim finish	304 m2	£ 35.00	£10,640
	Repairs to existing retained plasterwork	3 Nr	£ 350.00	£1,050
	Wall tiling to kitchen and bathroom	39 m2	£ 38.00	£1,482
Floor finishes	Repairs to existing timber floors	160 m2	£ 8.00	£1,280
	Vinyl sheet to bathrooms and kitchens inc underlay	30 m2	£ 33.00	£990
	Allowance for skirtings	3 Nr	£ 650.00	£1,950
Ceiling finishes	New plasterboard ceilings throughout	240 m2	£ 23.00	£5,520
	Extra for acoustic insulation	240 m2	£ 15.00	£3,600
Decorations	Emulsion paint to walls and ceilings; gloss to joinery work (inc common areas)	3 Nr	£1,650.00	£4,950
	CARRIED FORWARD			£88,352



BROUGHT FORWARD			£88,352
Fittings	New kitchens (exc appliances)	3 Nr	£1,200.00 £3,600
	Sundry fittings	3 Nr	£ 250.00 £750
Sanitary fittings	New bathroom fittings	3 Nr	£ 900.00 £2,700
Plumbing	Hot, cold, soil and waste pipework	3 Nr	£1,000.00 £3,000
Heating	New electric heating to flats (not common areas)	3 Nr	£1,750.00 £5,250
Electric installation	New power and lighting throughout	240 m2	£ 40.00 £9,600
	New fire alarm and emergency lighting in common areas	Item	£3,500
Ventilation installation	Fans to bathroom and kitchen	6 Nr	£ 350.00 £2,100
TV aerial installation	Cables from roof to flats (no aerial)	3 Nr	£ 150.00 £450
Telephone Installation	Ducting form GF to flats	3 Nr	£ 200.00 £600
	New incoming service supplies (inc sub-mains)	3 Nr	£2,500.00 £7,500
	Scaffolding to building		Item £10,000
	Allowance for external works		Item £25,000
	Allowance for drainage extension repairs		Item £2,250
		16 weeks	£3,000.00 <u>£48,000</u>
TOTAL CONSTRUCTION COSTS			£212,652
Fees		12%	£25,518
Contingencies		7.50%	£17,863
TOTAL COSTS			£256,033
VALUE ADDED TAX TO ALL WORKS			£51,207
TOTAL COSTS INC VAT			£307,240
Total costs/m2			£ 1,280 /m2

NOTES

- 1 Building in basically good structure condition and suited to conversion without major structural alteration
- 2 Assumes no asbestos, dry rot or similar
- 3 External works costs assumed to provide new parking; entrance and garden etc.
- 4 Drainage assumed reused with allowance for repairs, extension and alterations



Medium Scheme of 6 units on three floors

Assumed scheme	Flats; 2no/floor		70m2 each	
	Common area		10m2/floor	
	Total area		450 m2	
Element	Assumed work			
Demolitions and clearance	Allowance for clearing flats and minor demolitions, cutting opening etc	6 Nr	£1,000.00	£6,000
Substructures	New damp proof course	53 m	£ 75.00	£3,975
	Minor repairs to floor slabs etc	150 m2	£ 15.00	£2,250
Roof	Retile	180 m2	£ 40.00	£7,200
	Allowance for repairs to structure		Item	£2,500
	Roof insulation	150 m2	£ 13.50	£2,025
	New rainwater insulation		Item	£3,000
Upper floors	Allowance for repairs	300 m2	£ 7.50	£2,250
	Acoustic insulation	300 m2	£ 30.00	£9,000
	Fireproofing	300 m2	£ 20.00	£6,000
Staircases	Existing assumed reused - overhaul		Item	£750
	Fire proof soffit		Item	£500
	Improve handrails		Item	£500
External walls	Minor repairs	477 m2	£ 5.00	£2,385
	Repoint 50%	239 m2	£ 20.00	£4,770
Windows	Remove existing	30 Nr	£ 20.00	£600
	New uPVC double glazed windows	30 Nr	£ 600.00	£18,000
External doors	New external entrance door	1 Nr	£ 900.00	£900
	New rear entrance door	1 Nr	£ 500.00	£500
	Entryphone system	6 Nr	£ 350.00	£2,100
Internal walls	Allowance for demolition of existing (part)	6 Nr	£ 250.00	£1,500
	New lightweight party walls	180 m2	£ 65.00	£11,700
	New stud internal partitions	120 m2	£ 35.00	£4,200
Internal doors	New flat entrance door	6 Nr	£ 500.00	£3,000
	New internal half hour FR doors in flats	36 Nr	£ 200.00	£7,200
	New fire doors in corridors	6 Nr	£ 300.00	£1,800
Wall finishes	Line internal walls with insulated plasterboard; skim finish	477 m2	£ 35.00	£16,695
	Repairs to existing retained plasterwork	6 Nr	£ 350.00	£2,100
	Wall tiling to kitchen and bathroom	78 m2	£ 38.00	£2,964
Floor finishes	Repairs to existing timber floors	450 m2	£ 8.00	£3,600
	Vinyl sheet to bathrooms and kitchens inc underlay	60 m2	£ 33.00	£1,980
	Allowance for skirtings	6 Nr	£ 650.00	£3,900
Ceiling finishes	New plasterboard ceilings throughout	450 m2	£ 23.00	£10,350
	Extra for acoustic insulation	450 m2	£ 15.00	£6,750
Decorations	Emulsion paint to walls and ceilings; gloss to joinery work (inc common areas)	6 Nr	£1,650.00	£9,900
	CARRIED FORWARD			£162,844



BROUGHT FORWARD				£162,844
Fittings	New kitchens (exc appliances)	6 Nr	£1,200.00	£7,200
	Sundry fittings	6 Nr	£ 250.00	£1,500
Sanitary fittings	New bathroom fittings	6 Nr	£ 900.00	£5,400
Plumbing	Hot, cold, soil and waste pipework	6 Nr	£1,000.00	£6,000
Heating	New electric heating to flats (not common areas)	6 Nr	£1,750.00	£10,500
Electric installation	New power and lighting throughout	450 m2	£ 40.00	£18,000
	New fire alarm and emergency lighting in common areas		Item	£4,500
Ventilation installation	Fans to bathroom and kitchen	12 Nr	£ 350.00	£4,200
TV aerial installation	Cables from roof to flats (no aerial)	6 Nr	£ 150.00	£900
Telephone Installation	Ducting form GF to flats	6 Nr	£ 200.00	£1,200
		6 Nr	£2,500.00	£15,000
			Item	£15,000
			Item	£50,000
			Item	£4,500
		22 weeks	£3,000.00	<u>£66,000</u>
TOTAL CONSTRUCTION COSTS				£372,744
Fees		10%		£37,274
Contingencies		7.50%		£30,751
TOTAL COSTS				£440,770
VALUE ADDED TAX TO ALL WORKS				£88,154
TOTAL COSTS INC VAT				£528,924
Total costs/m2				£ 1,175 /m2

NOTES

- 1 Building in basically good structure condition and suited to conversion without major structural alteration
- 2 Assumes no asbestos, dry rot or similar
- 3 External works costs assumed to provide new parking; entrance and garden etc.
- 4 Drainage assumed reused with allowance for repairs, extension and alterations



Large Scheme of 12 units on three floors

Assumed scheme	Flats; 4 no/floor		70m2 each	
	Common area		20m2/floor	
	Total area		900 m2	
Element	Assumed work			
Demolitions and clearance	Allowance for clearing flats and minor demolitions, cutting opening etc	12 Nr	£1,000.00	£12,000
Substructures	New damp proof course	75 m	£ 75.00	£5,625
	Minor repairs to floor slabs etc	300 m2	£ 15.00	£4,500
Roof	Retile	375 m2	£ 40.00	£15,000
	Allowance for repairs to structure		Item	£5,000
	Roof insulation	300 m2	£ 13.50	£4,050
	New rainwater insulation		Item	£5,000
Upper floors	Allowance for repairs	600 m2	£ 7.50	£4,500
	Acoustic insulation	600 m2	£ 30.00	£18,000
	Fireproofing	600 m2	£ 20.00	£12,000
Staircases	2 Nr Existing assumed reused - overhaul		Item	£1,500
	Fire proof soffit		Item	£1,000
	Improve handrails		Item	£1,000
External walls	Minor repairs	675 m2	£ 5.00	£3,375
	Repoint 50%	338 m2	£ 20.00	£6,750
Windows	Remove existing	60 Nr	£ 20.00	£1,200
	New uPVC double glazed windows	60 Nr	£ 600.00	£36,000
External doors	New external entrance door	2 Nr	£ 900.00	£1,800
	New rear entrance door	2 Nr	£ 500.00	£1,000
	Entryphone system	12 Nr	£ 350.00	£4,200
Internal walls	Allowance for demolition of existing (part)	12 Nr	£ 250.00	£3,000
	New lightweight party walls	360 m2	£ 65.00	£23,400
	New stud internal partitions	240 m2	£ 35.00	£8,400
Internal doors	New flat entrance door	12 Nr	£ 500.00	£6,000
	New internal half hour FR doors in flats	72 Nr	£ 200.00	£14,400
	New fire doors in corridors	12 Nr	£ 300.00	£3,600
Wall finishes	Line internal walls with insulated plasterboard; skim finish	675 m2	£ 35.00	£23,625
	Repairs to existing retained plasterwork	12 Nr	£ 350.00	£4,200
	Wall tiling to kitchen and bathroom	156 m2	£ 38.00	£5,928
Floor finishes	Repairs to existing timber floors	450 m2	£ 8.00	£3,600
	Vinyl sheet to bathrooms and kitchens inc underlay	120 m2	£ 33.00	£3,960
	Allowance for skirtings	12 Nr	£ 650.00	£7,800
Ceiling finishes	New plasterboard ceilings throughout	450 m2	£ 23.00	£10,350
	Extra for acoustic insulation	450 m2	£ 15.00	£6,750
Decorations	Emulsion paint to walls and ceilings; gloss to joinery work (inc common areas)	12 Nr	£1,650.00	£19,800
	CARRIED FORWARD			£288,313



BROUGHT FORWARD			£288,313	
Fittings	New kitchens (exc appliances)	12 Nr	£1,200.00	£14,400
	Sundry fittings	12 Nr	£ 250.00	£3,000
Sanitary fittings	New bathroom fittings	12 Nr	£ 900.00	£10,800
Plumbing	Hot, cold, soil and waste pipework	12 Nr	£1,000.00	£12,000
Heating	New electric heating to flats (not common areas)	12 Nr	£1,750.00	£21,000
Electric installation	New power and lighting throughout	900 m2	£ 40.00	£36,000
	New fire alarm and emergency lighting in common areas		Item	£9,000
Ventilation installation	Fans to bathroom and kitchen	24 Nr	£ 350.00	£8,400
TV aerial installation	Cables from roof to flats (no aerial)	12 Nr	£ 150.00	£1,800
Telephone Installation	Ducting form GF to flats	12 Nr	£ 200.00	£2,400
	New incoming service supplies (inc sub-mains)	12 Nr	£2,500.00	£30,000
	Scaffolding to building		Item	£25,000
	Allowance for external works		Item	£75,000
	Allowance for drainage extension repairs		Item	£7,500
		32 weeks		
	Preliminaries for 32 weeks		£3,250.00	<u>£104,000</u>
TOTAL CONSTRUCTION COSTS				£648,613
	Fees	10%		£64,861
	Contingencies	7.50%		£53,511
TOTAL COSTS				£766,985
VALUE ADDED TAX TO ALL WORKS			20%	£153,397
TOTAL COSTS INC VAT				£920,382
Total costs/m2				£ 1,023 /m2

NOTES

- 1 Building in basically good structure condition and suited to conversion without major structural alteration
- 2 Assumes no asbestos, dry rot or similar
- 3 External works costs assumed to provide new parking; entrance and garden etc.
- 4 Drainage assumed reused with allowance for repairs, extension and alterations



**Appendix D.
Non- Residential Cost Summaries**


WIRRAL CIL - SUMMARY OF CONSTRUCTION COSTS FOR NON-RESIDENTIAL DEVELOPMENTS

Type	Location	No floors	Floor area (ft2)	Floor area (m2)	Site area (ft2)	Site areas (m2)	Base cost	Extra cost for Brownfield site	Total for Brownfield site	TOTAL COST	BREEAM assumed addition for Very	OVERALL TOTAL COST	Fee % included	Construction period
Offices	Town Centre	2 Nr	5,000 ft2	464 m2	5,646 ft2	524 m2	£ 1,397 /m2	£ 44.38 /m2	£ 1,441 /m2	£669,287	0.5%	£672,634	12%	7 months
Offices	Town Centre	2 Nr	20,000 ft2	1,857 m2	22,592 ft2	2,098 m2	£ 1,485 /m2	£ 44.38 /m2	£ 1,529 /m2	£2,840,598	0.5%	£2,854,801	12%	10 months
Offices	Out of Town	2 Nr	5,000 ft2	464 m2	6,703 ft2	622 m2	£ 1,627 /m2	£ 45.03 /m2	£ 1,672 /m2	£776,386	0.5%	£780,268	12%	7 months
Offices	Out of Town	2 Nr	20,000 ft2	1,857 m2	25,958 ft2	2,411 m2	£ 1,489 /m2	£ 44.89 /m2	£ 1,534 /m2	£2,848,987	0.5%	£2,863,232	12%	10 months
Offices	Out of Town	2 Nr	50,000 ft2	4,643 m2	66,305 ft2	6,158 m2	£ 1,341 /m2	£ 44.98 /m2	£ 1,386 /m2	£6,435,647	0.5%	£6,467,826	11%	14 months
Industrial B2/B8	All areas	1 Nr	5,000 ft2	464 m2	8,497 ft2	789 m2	£ 798 /m2	£ 46.13 /m2	£ 844 /m2	£391,961	0.3%	£393,136	9%	4 months
Industrial B2/B8	All areas	1 Nr	10,000 ft2	929 m2	16,425 ft2	1,525 m2	£ 701 /m2	£ 45.95 /m2	£ 747 /m2	£693,677	0.3%	£695,758	8%	6 months
Industrial B2/B8	All areas	1 Nr	20,000 ft2	1,857 m2	32,566 ft2	3,024 m2	£ 553 /m2	£ 45.91 /m2	£ 599 /m2	£1,112,385	0.3%	£1,115,723	7%	8 months
Industrial B2/B8	All areas	1 Nr	50,000 ft2	4,643 m2	81,223 ft2	7,543 m2	£ 522 /m2	£ 45.90 /m2	£ 568 /m2	£2,636,964	0.3%	£2,644,874	7%	10 months
Industrial B2/B8	All areas	1 Nr	150,000 ft2	13,930 m2	242,832 ft2	22,551 m2	£ 490 /m2	£ 45.88 /m2	£ 536 /m2	£7,464,887	0.3%	£7,487,282	6%	12 months
Retail (Food store - Convenience)	Town Centre	1 Nr	3,000 ft2	279 m2	7,521 ft2	698 m2	£ 1,057 /m2	£ 48.60 /m2	£ 1,106 /m2	£308,025	0.7%	£310,181	9%	5 months
Retail (Food store - Convenience)	Out of Town	1 Nr	3,000 ft2	279 m2	8,332 ft2	774 m2	£ 1,140 /m2	£ 49.43 /m2	£ 1,189 /m2	£331,380	0.7%	£333,700	8%	5 months
Retail (Food store - Convenience)	Out of Town	1 Nr	10,000 ft2	929 m2	29,959 ft2	2,782 m2	£ 1,081 /m2	£ 50.10 /m2	£ 1,131 /m2	£1,050,432	0.7%	£1,057,785	7%	9 months
Retail (Food store - Convenience)	Out of Town	1 Nr	30,000 ft2	2,786 m2	92,038 ft2	8,547 m2	£ 1,012 /m2	£ 50.33 /m2	£ 1,062 /m2	£2,959,674	0.7%	£2,980,392	5%	10 months
Retail (Food store - Convenience)	Out of Town	1 Nr	50,000 ft2	4,643 m2	151,566 ft2	14,076 m2	£ 965 /m2	£ 50.21 /m2	£ 1,015 /m2	£4,714,029	0.7%	£4,747,027	7%	12 months
Non food retail (Town Centre)	Town Centre	1 Nr	3,000 ft2	279 m2	3,751 ft2	348 m2	£ 1,105 /m2	£ 48.04 /m2	£ 1,153 /m2	£321,242	0.7%	£323,490	8%	5 months
Non food retail (Out of Town)	Out of Town	1 Nr	10,000 ft2	929 m2	24,182 ft2	2,246 m2	£ 983 /m2	£ 48.33 /m2	£ 1,031 /m2	£957,775	0.7%	£964,479	7%	8 months
Non food retail (Out of Town)	Out of Town	1 Nr	30,000 ft2	2,786 m2	74,194 ft2	6,890 m2	£ 867 /m2	£ 48.50 /m2	£ 916 /m2	£2,550,614	0.7%	£2,568,469	6%	10 months
Bingo	All areas	2 Nr	5,000 ft2	464 m2	8,124 ft2	754 m2	£ 1,727 /m2	£ 45.90 /m2	£ 1,773 /m2	£823,225	1.0%	£831,457	12%	8 months
Bowling Alley	All areas	1 Nr	10,000 ft2	929 m2	21,144 ft2	1,964 m2	£ 1,361 /m2	£ 47.40 /m2	£ 1,408 /m2	£1,307,949	1.0%	£1,321,029	12%	12 months
Gymnasium	All areas	1 Nr	8,000 ft2	743 m2	17,094 ft2	1,587 m2	£ 1,064 /m2	£ 47.47 /m2	£ 1,111 /m2	£825,757	1.0%	£834,014	12%	8 months
Gymnasium	All areas	1 Nr	20,000 ft2	1,857 m2	43,481 ft2	4,038 m2	£ 1,206 /m2	£ 47.58 /m2	£ 1,254 /m2	£2,328,349	1.0%	£2,351,632	12%	10 months
Cinema	All areas	1 Nr	20,000 ft2	1,857 m2	36,951 ft2	3,432 m2	£ 1,418 /m2	£ 46.58 /m2	£ 1,465 /m2	£2,720,247	1.0%	£2,747,449	12%	11 months
Hotel	All areas	2 Nr	20,000 ft2	1,857 m2	26,754 ft2	2,485 m2	£ 1,389 /m2	£ 45.02 /m2	£ 1,434 /m2	£2,663,478	1.0%	£2,690,113	12%	12 months
Food and Drink (Pub/Restaurant)	Town Centre	2 Nr	7,500 ft2	697 m2	29,905 ft2	2,777 m2	£ 1,698 /m2	£ 53.15 /m2	£ 1,751 /m2	£1,219,688	1.0%	£1,231,885	12%	11 months
Food and Drink (Pub/Restaurant)	Out of Town	2 Nr	7,500 ft2	697 m2	44,838 ft2	4,164 m2	£ 1,932 /m2	£ 59.26 /m2	£ 1,991 /m2	£1,386,926	1.0%	£1,400,795	5%	11 months
Car Showroom	All areas	1 Nr	10,000 ft2	929 m2	23,237 ft2	2,158 m2	£ 1,528 /m2	£ 48.04 /m2	£ 1,576 /m2	£1,463,635	1.0%	£1,478,271	5%	8 months
Recycling Centre	All areas	1 Nr	10,000 ft2	929 m2	38,288 ft2	3,556 m2	£ 844 /m2	£ 52.66 /m2	£ 897 /m2	£832,708	1.0%	£841,036	8%	8 months
Garden centre	All areas	1 Nr	100,000 ft2	9,287 m2	237,979 ft2	22,101 m2	£ 751 /m2	£ 48.21 /m2	£ 799 /m2	£7,422,122	1.0%	£7,496,344	8%	9 months
Residential Institutional (30 Bed)	All areas	3 Nr	18,000 ft2	1,672 m2	17,038 ft2	1,582 m2	£ 1,369 /m2	£ 43.82 /m2	£ 1,413 /m2	£2,361,692	1.5%	£2,397,117	12%	12 months
Nursing Home (30 Bed)	All areas	2 Nr	11,250 ft2	1,045 m2	9,454 ft2	878 m2	£ 1,371 /m2	£ 43.49 /m2	£ 1,414 /m2	£1,477,806	1.5%	£1,499,973	12%	10 months
Stables	All areas	1 Nr	1,500 ft2	139 m2	3,763 ft2	350 m2	£ 650 /m2	£ 48.63 /m2	£ 699 /m2	£97,109	2.0%	£99,051	12%	4 months
Equestrian Centre	All areas	1 Nr	5,000 ft2	464 m2	12,257 ft2	1,138 m2	£ 546 /m2	£ 49.69 /m2	£ 596 /m2	£276,601	2.0%	£282,134	7%	6 months
Agricultural Building	All areas	1 Nr	2,500 ft2	232 m2	2,702 ft2	251 m2	£ 379 /m2	£ 48.43 /m2	£ 427 /m2	£99,237	0.0%	£99,237	6%	3 months
Rural Industries	All areas	1 Nr	2,000 ft2	186 m2	5,666 ft2	526 m2	£ 1,105 /m2	£ 49.60 /m2	£ 1,155 /m2	£214,451	2.0%	£218,740	7%	4 months