

Green Space Cost Calculations 2011

Evidence Base to Green Spaces and Water Environment SPD

Summary

| Typology | Total cost in examples | hectares in examples | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling pa |
|-------------------------------|-------------------------------|-----------------------------|------------------|-----------------------------|-------------------------------|-----------------------------|
| Outdoor pitches | | | | 1.6 | | 32.6 |
| Play areas | 27,540.00 | 0.50 | 55,080.00 | 0.50 | 27,540.00 | 66.36 |
| Allotments | 13,589.51 | 1.00 | 13,589.51 | 0.20 | 2,717.90 | 6.55 |
| Informal/ natural green space | 566,019.04 | 84.00 | 6,738.32 | 2.00 | 13,476.64 | 32.47 |
| Parks and Recreation Grounds | 82,587.00 | 12.60 | 6,554.52 | 0.30 | 1,966.36 | 4.74 |
| Cemeteries | 12,205.00 | 1.00 | 12,205.00 | 0.60 | 7,323.00 | 17.65 |
| Totals | | | | 5.20 | | 160.37 |
| | | | | | | |

Informal / Natural Greenspace

Informal/natural green space maintenance costs for 840,000m² Excluding nature reserves

| Item | Qty | unit | Freq | Rate GM contract 2011* | Total maintenance | renewals pa | Total maint + renewals |
|-------------------------|---------|----------------|------|------------------------|-------------------|-------------|------------------------|
| Fencing post and wire | 4,000 | lm | 1 | 0.25 | 1000 | 1586.28 | 2586.28 |
| Fencing post and rail | 2,000 | lm | 1 | 0.25 | 500 | 2840.47 | 3340.47 |
| Gates high mobility | 22 | ea | 1 | 20 | 440 | 475.88 | 915.88 |
| Gates maintenance | 13 | ea | 1 | 20 | 260 | 7158.64 | 7418.64 |
| Walls | 1,100 | m ² | 1 | 0.1 | 110 | 83366.08 | 83476.08 |
| Path high use cycleway | 10,300 | m ² | 2 | 0.1 | 2060 | 56202.08 | 58262.08 |
| Path low use pedestrian | 10,400 | m ² | 2 | 0.1 | 2080 | 2059.71 | 4139.71 |
| Boardwalk | 320 | m ² | 2 | 1 | 640 | 17705.00 | 18345.00 |
| bridges | 10 | ea | 1 | 200 | 2000 | | 2000.00 |
| Existing trees | 50 | | 1 | 5 | 250 | | 250.00 |
| New Trees | 2,250 | ea | 1 | 3 | 6750 | | 6750.00 |
| New scrub | 63,000 | m ² | 1 | 0.1 | 6300 | | 6300.00 |
| New woodand | 30,000 | m ² | 1 | 0.02 | 600 | | 600.00 |
| Renovated hedge 2m high | 2,400 | lm | 1 | 2.5 | 6000 | | 6000.00 |
| New hedge 2m high | 1,400 | lm | 2 | 2.5 | 7000 | | 7000.00 |
| Marginal planting | 29,000 | m ² | 2 | 1 | 58000 | | 58000.00 |
| rough grass | 32,600 | m ² | 2 | 0.02 | 1304 | | 1304.00 |
| Meadow cut and clear | 375,800 | m ² | 2 | 0.16 | 120256 | | 120256.00 |
| Amenity grass | 241,000 | m ² | 8 | 0.014 | 26992 | | 26992.00 |
| | | | | | 0 | | 0.00 |

| | | | | | | | |
|------------------------|----------------|----------------------|----|-------|-----------------|------------------|------------------|
| existing pond | 5,500 | m ² | 1 | 0.2 | 1100 | | 1100.00 |
| New pond | 6,400 | m ² | 1 | 0.2 | 1280 | | 1280.00 |
| New scrape | 27,950 | m ² | 1 | 1.6 | 44720 | | 44720.00 |
| Ditches | 750 | lm | 1 | 3.2 | 2400 | | 2400.00 |
| Other - culverts etc | 50 | ea | 52 | 2.35 | 6110 | | 6110.00 |
| Water troughs | 10 | ea | 52 | 0 | 0 | | 0.00 |
| Benches | 100 | ea | 2 | 2 | 400 | | 400.00 |
| Picnic tables | 33 | ea | 2 | 2 | 132 | | 132.00 |
| Litter bins | 50 | ea | 84 | 0.4 | 1680 | | 1680.00 |
| Dog Bins | 30 | ea | 84 | 4 | 10080 | | 10080.00 |
| Signs | 56 | ea | 52 | 1 | 2912 | | 2912.00 |
| art work | 12 | ea | 52 | 1 | 624 | | 624.00 |
| support for volunteers | 1 | item | 1 | 20000 | 20000 | | 20000.00 |
| | | | | | | | 0.00 |
| Sub total | 833,370 | m² | | | 333980 | 171394.14 | 505374.14 |
| Admin 12% | | | | | 40077.6 | 20567.30 | 60644.90 |
| Total | | | | | 374057.6 | 191961.44 | 566019.04 |

* Where a contract rate exists

Typology
Informal/ natural green space

| Total cost in example | hectares in example | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling |
|------------------------------|----------------------------|------------------|-----------------------------|-------------------------------|--------------------------|
| 566,019.04 | 84.00 | 6,738.32 | 2.00 | 13,476.64 | 32.47 |

Play Area Annual maintenance costs

| Item | 2010 prices | | | |
|--|-------------|----------------|---------|-----------------|
| | Qty | Unit | Rate pa | Total |
| Inspections | 84 | ea | 38 | 3192 |
| Repairs - wear and tear, accidental damage and vandalism* | 1 | item | 1271 | 1271 |
| Renewal - Whole installation @ £131,499 after 20 years ** | 1 | item | 6574.95 | 6574.95 |
| Maintenance of associated recreational space - costs as for parks and recreation grounds | 4400 | m ² | 3.08 | 13552 |
| Sub Total | | | | 24589.95 |
| Admin @12% | | | | 2950.794 |
| Total per play area/pa | | | | 27540.74 |

*Unscheduled work for one full year indexed up to 2010 prices

** Renewal of the capital items listed below

| Item | Qty | Unit | Rate | Total |
|---|-----|----------------|---------|-----------------|
| Fixed Equipment , including delivery and installation | 1 | item | 44239.6 | 44239.6 |
| Safety surfacing* | 1 | m ² | 15134.6 | 15134.6 |
| Hard paving | 1 | m ² | 8964.34 | 8964.34 |
| Fencing | 150 | m | 40.747 | 6112.05 |
| Gates - pedestrian | 2 | ea | 989.57 | 1979.14 |
| Gates - maintenance | 1 | ea | 2328.4 | 2328.4 |
| Furniture -benches | 3 | ea | 1047.78 | 3143.34 |
| Furniture - picnic table adult | 1 | ea | 1746.3 | 1746.3 |
| Furniture - picnic table child | 1 | ea | 1397.04 | 1397.04 |
| Litter bins | 2 | ea | 640.31 | 1280.62 |
| Signs | 2 | ea | 174.63 | 349.26 |
| Other natural play elements | 1 | item | 8615.08 | 8615.08 |
| sub total | | | | 95289.77 |
| Contract prelims at 15% | | | | 14293.47 |
| sub total | | | | 109583.2 |
| Design/contract admin 20% | | | | 21916.65 |
| Total renewal cost | | | | 131499.9 |

| | Total pa cost in example | hectares in example | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling |
|------------|--------------------------|---------------------|-----------|----------------------|------------------------|-------------------|
| Play areas | 27540 | 0.5 | 55080 | 0.5 | 27540 | 66.36145 |

Allotments – Annual costs taken from ABC’s costs for 2011

| Work | Costs 2011 £ per 8 hectares | hectares | per hectare |
|---|--|-----------------|------------------------|
| GM contract total contract value at 31 Dec 2011 | 3,210.93 | 8 | 401.3663 |
| Total of WIs paid during 2011 under the GM contract | 777.00 | 8 | 97.125 |
| Value of Street Cleansing Contract at Dec 2011 | 0.00 | 8 | 0 |
| Value of Arboricultural Contract | 111.00 | 8 | 13.875 |
| Value of Annual Bedding Supply Contract | 0.00 | 8 | 0 |
| Cultural Services contracts and budget | 0.00 | 8 | 0 |
| Other Inocing and water supply | 4,000.00 | 8 | 500 |
| Income - rents | -6,200.00 | 8 | -775 |
| Sub total | 1,898.93 | 8 | 237.3663 |
| Staff costs | 25449.94 | 8 | 3181.243 |
| | 27,348.87 | 8 | 3418.609 |
| Renewals (from capital costs below £85997) | 4,299.85 | 0.66 | 6514.924 |
| Total per hectare | | | 13589.51 |

For a 20 plot allotment site (6600m²) @ 2010 prices

| Item | Unit | Rate | Qty | Total |
|--------------------------------------|----------------|-------------|------------|--------------|
| Perimeter security fencing weldmesh | lm | 49.147 | 200 | 9829.4 |
| Perimeter security fencing Barbican | lm | 110.33 | 150 | 16549.5 |
| Gates | item | 932.79 | 1 | 932.79 |
| Access paths | lm | 70.21 | 234 | 16429.14 |
| Car park surfacing | m ² | 30.09 | 1230 | 37010.7 |
| Paving around store and service area | m ² | 23.069 | 130 | 2998.97 |
| Store | item | 1504.5 | 1 | 1504.5 |
| Portable toilet | item | 742.22 | 1 | 742.22 |
| Total renewals | | | | 85997.22 |

| | Total pa cost | hectares | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling |
|------------|--------------------------|-----------------|------------------|-------------------------------------|-----------------------------------|------------------------------|
| Allotments | 13589.51 | 1 | 13589.51 | 0.2 | 2717.901598 | 6.549160478 |

Cemeteries – from existing costs for 2011

| Item | cost | hectares | £/ha |
|---|----------|----------|-----------------|
| GM contract total contract value at 31 Dec 2011 | 121176.9 | 13.39 | 9049.804 |
| Total of WIs paid during 2011 under the GM contract | 17363.71 | 13.39 | 1296.767 |
| Value of Street Cleansing Contract at Dec 2011 | 1000 | 13.39 | 74.6826 |
| Value of Arboricultural Contract | 7000 | 13.39 | 522.7782 |
| Income | -76860 | 13.39 | -5740.1 |
| staff costs | 59612.69 | 13.39 | 4452.031 |
| Renewals £203979 (from the capital costs below) over 20 years | 10198.95 | 4 | 2549.738 |
| Total | | | 12205.69 |

| Capital hard works for new cemetery | unit | rate | qty. | Total |
|-------------------------------------|----------------|--------|------|----------|
| Fencing chain link | lm | 49.147 | 400 | 19658.8 |
| Fencing bow top | | 100 | 400 | 40000 |
| water | item | 5,000 | 1 | 5000 |
| Entrance gates and feature | item | 20,000 | 1 | 20000 |
| Internal roads and parking | m ² | 157 | 760 | 119320 |
| total | | | | 203978.8 |

| | Total pa cost in example | hectares in example | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling |
|------------|--------------------------------|---------------------------|-----------|----------------------------|------------------------------|----------------------|
| Cemeteries | 12205 | 1 | 12205 | 0.6 | 7323 | 17.64578 |

Parks and Recreation Areas

| Item | Qty | Unit | Rate | Freq | Total |
|-------------------------------------|-------|----------------|-------|--------------|-----------------|
| Paving bound gravel weeding | 2000 | m ² | 0.1 | 2 | 400 |
| Hard paving bitmac high use | 2587 | m ² | 0 | | 0 |
| Hard Paving - special | 1500 | m ² | 0.1 | | 0 |
| Board Walks | 70 | ea | 1 | 2 | 140 |
| Bridges | 2 | ea | 200 | 1 | 400 |
| Fencing Special | 300 | m | 0.1 | 1 | 30 |
| Fencing - bow top | 120 | lm | 0.1 | 1 | 12 |
| Walls | 900 | m ² | 0.1 | 1 | 90 |
| Gates pedestrian - special | 5 | ea | 20 | 1 | 100 |
| Gates pedestrian - bow top | 20 | ea | 20 | 1 | 400 |
| Gates - maintenance | 1 | ea | 20 | 1 | 20 |
| Benches - special | 15 | ea | 2 | 2 | 60 |
| Picnic table - special | 4 | ea | 2 | 2 | 16 |
| Benches | 24 | ea | 2 | 2 | 96 |
| Picnic tables | 8 | ea | 2 | 2 | 32 |
| Litter bins - integrated | 12 | ea | 0.4 | 130 | 624 |
| Litter bins - free standing | 11 | ea | 0.4 | 84 | 369.6 |
| Dog bin | 7 | ea | 4 | 84 | 2352 |
| Signs - entrances | 4 | ea | 1 | 52 | 208 |
| Signs - topics/interpretation | 13 | ea | 1 | 52 | 676 |
| | 0 | | | | 0 |
| Trees | 720 | ea | 3 | 1 | 2160 |
| Woodland | 8803 | m ² | 0.02 | 1 | 176.06 |
| Shrubs - ornamental prune | 3350 | m ² | 0.27 | 2 | 1809 |
| Shrubs - ornamental weed | 3350 | m ² | 0.17 | 3 | 1708.5 |
| Shrubs informal/scrub | 5117 | m ² | 0.1 | 1 | 511.7 |
| Formal hedge - new | 800 | m ² | 0.48 | 3 | 1152 |
| Informal hedge - new | 1500 | m ² | 0.49 | 2 | 1470 |
| Reovate hedge - existing | 200 | na | 20 | | 0 |
| Herbaceous/bulbs weed | 100 | m ² | 8 | 0.30921 4 | 247.371 1 |
| Herbaceous/bulbs staking etc | 100 | m ² | 1 | 1.79400 4 | 179.400 4 |
| Maringal planting | 7380 | m ² | 1 | 2 | 14760 |
| Grass general amenity | 77000 | m ² | 0.014 | 8 | 8624 |
| Grass high profile | 3350 | m ² | 0.04 | 18 | 2412 |
| Meadow /Wildfower grass | 12100 | m ² | 0.16 | 2 | 3872 |
| Pond - new | 1393 | m ² | 0.2 | 1 | 278.6 |
| Scrapes/ditches - new | 4880 | m ² | 1.6 | 1 | 7808 |
| Clear/re-profile ditches - existing | 100 | lm | 3.2 | 1 | 320 |
| Culverts/water management | 10 | ea | 2.5 | 52 | 1300 |
| support for volunteers | 1 | item | 5000 | 1 | 5000 |
| Art | 4 | ea | 1 | 52 | 208 |
| Total | | | | | 60022.23 |
| staff costs 12% | | | | | 7202.668 |
| renewal costs from table below | | | | | 15363 |
| Total annual costs | | | | | 82587.9 |

| Item | Renew | % build cost | Design life years | Build cost | Renewal cost each occasion | Renewal pa |
|-------------------------------------|-----------------------|--------------|-------------------|------------|----------------------------|--------------|
| Paving bound gravel - moderate use | Wearing course | 20 | 10 | 80000 | 16000 | 1600 |
| Hard paving bitmac high use | Wearing course | 20 | 10 | 137111 | 27422.2 | 2742 |
| Hard Paving - special | | 20 | 10 | 105000 | 21000 | 2100 |
| Board Walks | Whole installation | 100 | 20 | 8400 | 8400 | 420 |
| Bridges | Finshes and fixings | 10 | 10 | 40000 | 4000 | 400 |
| Fencing Special | Finishes and fixings | 10 | 10 | 60000 | 6000 | 600 |
| Fencing - bow top | Finishes and fixings | 10 | 15 | 12000 | 1200 | 80 |
| Walls | Pointing | 5 | 20 | 108000 | 5400 | 270 |
| Gates pedestrian - special | Finishes and fixings | 10 | 5 | 7500 | 750 | 150 |
| Gates pedestrian - bow top | Finishes and fixings | 10 | 20 | 7000 | 700 | 35 |
| Gates - maintenance | Whole installation | 100 | 20 | 400 | 400 | 20 |
| Benches - special | Finishes and fixingsz | 10 | 5 | 15000 | 1500 | 300 |
| Picnic table - special | Finishes and fixings | 10 | 5 | 7200 | 720 | 144 |
| Benches | Whole installation | 100 | 15 | 14400 | 14400 | 960 |
| Picnic tables | Whole installation | 100 | 15 | 9600 | 9600 | 640 |
| Litter bins - integrated | Fixings finishes | 10 | 5 | 9600 | 960 | 192 |
| Litter bins - free standing | Whole installation | 100 | 10 | 6600 | 6600 | 660 |
| Dog bin | Whole installation | 100 | 10 | 2800 | 2800 | 280 |
| Signs - entrances | Whole installation | 100 | 5 | 2400 | 2400 | 480 |
| Signs - topics/interpretation | All | 100 | 5 | 5200 | 5200 | 1040 |
| | | | | 0 | 0 | |
| Trees | | | | 288000 | 0 | |
| Woodland | | | | 88030 | 0 | |
| Shrubs - ornamental | | | | 201000 | 0 | |
| Shrubs informal/scrub | | | | 51170 | 0 | |
| Formal hedge - new | | | | 4000 | 0 | |
| Informal hedge - new | | | | 4500 | 0 | |
| Reovate hedge - existing | | | | 4000 | 0 | |
| Herbaceous/bulbs | | | | 3000 | 0 | |
| Maringal planting | | | | 221400 | 0 | |
| Grass seeding | | | | 231000 | 0 | |
| Grass turfing | | | | 26800 | 0 | |
| Meadow /Wildfower grass | | | | 36300 | 0 | |
| Pond - new | | | | 4179 | 0 | |
| Scrapes/ditches - new | | | | 9760 | 0 | |
| Clear/re-profile ditches - existing | | | | 0 | 0 | |
| Culverts/water management | Whole installation | 100 | 40 | 10000 | 10000 | 250 |
| | | | | 0 | 0 | |
| Art | Finishes and fixings | 100 | 5 | 40000 | 40000 | 2000 |
| Total | | | | | | 15363 |

| Parks and recreation grounds | Total pa cost in example | hectares in example | £/hectare | SPD ha/415 dwellings | cost per 415 dwellings | cost per dwelling |
|------------------------------|--------------------------|---------------------|-----------|----------------------|------------------------|-------------------|
| | 82587 | 12.6 | 6554.524 | 0.3 | 1966.357 | 4.73821 |