



## PART G WATER CALCULATIONS

|                   |                                |
|-------------------|--------------------------------|
| <b>PROJECT</b>    | <b>Harbour View</b>            |
| <b>DEVELOPER</b>  | <b>Redrow Homes</b>            |
| <b>HOUSE TYPE</b> | <b>Leadon &amp; Bromsgrove</b> |

In line with best practice it is proposed that the sanitary specification of each property will incorporate low flow eco sanitary ware and flow restriction devices to achieve the appropriate level of water consumption. The following table details the capacities and flow rates of the sanitary ware to be installed in each property.

**Table 1 – Flow Rates & Capacities**

| <b>Fitting</b>      | <b>All Plots</b>         |                     |
|---------------------|--------------------------|---------------------|
| <b>Toilets</b>      | 4 & 2.6 litre dual flush | Sand 21 Cistern     |
| <b>WHB Taps</b>     | 5 Litres/min             | Calista Mixer       |
| <b>Kitchen Taps</b> | 10 litres/min            |                     |
| <b>Bath</b>         | 130 litres               | SND21 Standard Bath |
| <b>Shower</b>       | 8 litres/min             | Mira Shower         |



The following table has been extracted from the *Water Efficiency Calculator for New Dwellings (September 2009)*. It details the Part G water consumption of each plot.

| Installation Type              | Unit of Measurement                        | Capacity/Flow Rate              | Use Factor | Fixed Use (litres/person/day) | Litres per Person day. = [(1) x (2)] + (3) + (4) |
|--------------------------------|--------------------------------------------|---------------------------------|------------|-------------------------------|--------------------------------------------------|
|                                |                                            | (1)                             | (2)        | (3)                           | (4)                                              |
| WC (Single Flush)              | Full Flush (litres)                        |                                 | 4.42       | 0.00                          |                                                  |
| WC (Dual Flush)                | Full Flush (litres)                        | 4.00                            | 1.46       | 0.00                          | 5.84                                             |
|                                | Part Flush (litres)                        | 2.60                            | 2.96       | 0.00                          | 7.70                                             |
| WC (Multiple Fittings)         | Average effective flushing volume (litres) |                                 | 4.42       | 0.00                          |                                                  |
| Taps (excluding kitchen tap)   | Flow rate (litres/min)                     | 5.00                            | 1.58       | 1.58                          | 9.48                                             |
| Bath (where shower present)    | Capacity to overflow (litres)              | 130                             | 0.11       | 0.00                          | 14.30                                            |
| Shower (where bath present)    | Flow rate (litres/min)                     | 8.00                            | 4.37       | 0.00                          | 34.96                                            |
| Bath only                      | Capacity to overflow (litres)              |                                 | 0.50       | 0.00                          |                                                  |
| Shower only                    | Flow rate (litres/min)                     |                                 | 5.60       | 0.00                          |                                                  |
| Kitchen/utility room sink taps | Flow rate (litres/min)                     | 10.00                           | 0.44       | 10.36                         | 14.76                                            |
| Washing machine                | Litres/kg dry load                         | 8.17                            | 2.10       | 0.00                          | 17.16                                            |
| Dishwasher                     | Litres/place setting                       | 1.25                            | 3.60       | 0.00                          | 4.50                                             |
| Waste disposal unit            | Litres/use                                 | If present = 1<br>If absent = 0 | 3.08       | 0.00                          |                                                  |
| Water softener                 | Litres/person/day                          |                                 | 1.00       | 0.00                          |                                                  |
| <b>TOTAL</b>                   | <b>(5)</b>                                 |                                 |            |                               | <b>108.70</b>                                    |

|            |                                               |        |
|------------|-----------------------------------------------|--------|
| <b>(5)</b> | <b>Total Internal Water Consumption</b>       | 108.70 |
| <b>(6)</b> | <b>Normalisation Factor</b>                   | 0.91   |
| <b>(7)</b> | <b>Internal Water Consumption [(5) x (6)]</b> | 98.92  |
| <b>(8)</b> | <b>External Water Use</b>                     | 5.00   |
| <b>(9)</b> | <b>Part G Water Consumption [(8) + (7)]</b>   | 103.92 |

A Part G water consumption of 103.92 litres per person per day is calculated confirming compliance with the Building Regulations.