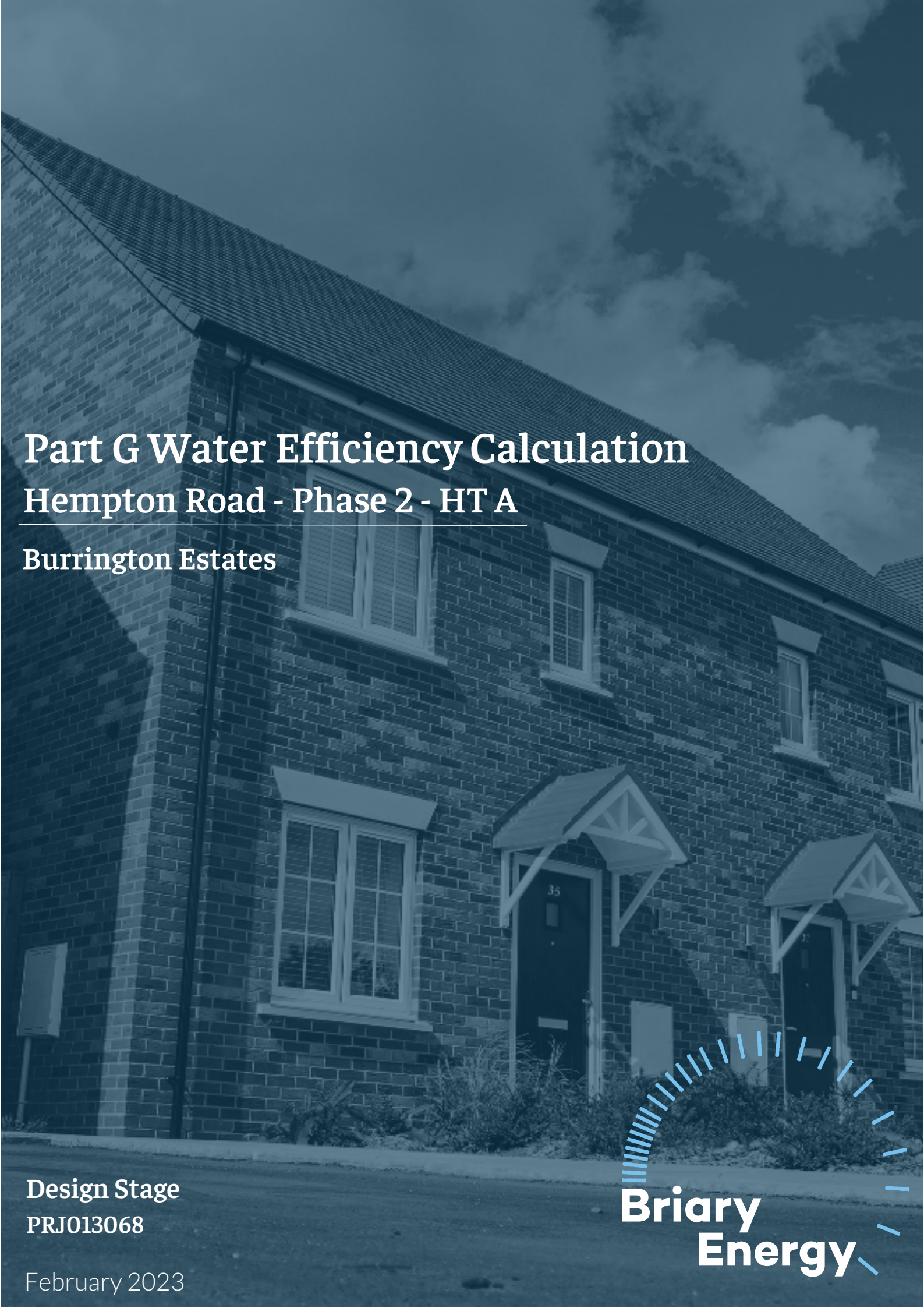

# Part G Water Efficiency Calculation

## Hempton Road - Phase 2 - HT A

**Burrington Estates**

**Design Stage**

**PRJ013068**

February 2023

Briary Energy

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# Water Use Assessment

## Design Stage - Calculation Report

Certificate Ref: BE44967916

Issued: 01 February 2023

Hempton Road - Phase 2 - HT A

Burrington Estates

Design Stage

Performance Target: 110 (litres / person / day)

*Building Regulations Part G - 110l*

Number of Bedrooms: 2

Occupancy for Calculation Purposes 3

| Installation Type | Unit | Capacity/ Flow Rate | Use Factor | Fixed use (l/p/day) | Total Use (l/p/day) |
|---|---|---|---|---|---|
| WC's | Volume (l) | 3.50 | 4.42 | 0.00 | 15.47 |
| Taps Exc. Kitchen | Flow Rate | 5.00 | 1.58 | 1.58 | 9.48 |
| Baths | (l) | 180.00 | 0.11 | 0.00 | 19.80 |
| Showers | (l/s) | 8.00 | 4.37 | 0.00 | 34.96 |
| Kitchen Taps | (l/s) | 8.00 | 0.44 | 10.36 | 13.88 |
| Washing Machines | (l/kgdry) | 8.17 | 2.10 | 0.00 | 17.16 |
| Dishwashers | (l/place) | 1.25 | 3.60 | 0.00 | 4.50 |
| Waste Disposal | (l/s) | | | | 0.00 |
| Water Softener | (l/s) | | | | 0.00 |
| Total Calculated Water Use (l/p/day) | | | | | 115.25 |
| Grey/Rainwater Reused (l) | | | | | 0.00 |
| Normalisation Factor | | | | | 0.91 |
| Total Water Consumption (l/p/day) | | | | | 104.88 |
| External Water Use Allowance (l) | | | | | 5.00 |
| **Total Consumption Part G (l/p/day)** | | | | | **109.88** |
| Part G Reg Assessment Result | | | | | **Pass ✓** |

The calculation methodology uses the water consumption figures provided from manufacturers' product details. Where details have not been provided, assumed figures have been used to achieve compliance. These must be met in order to satisfy the Part G Calculation for Hempton Road - Phase 2 - HT A. The calculation methodology is to be used to assess compliance against the water performance targets in Regulation 36. It is not a design tool for water supply and drainage systems. It is also not capable of calculating the actual potable water consumption of a new dwelling. Behaviour and changing behaviour can also have an effect on the amount of potable water used throughout a home.

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# Appliance/Usage Details

## Taps (Excluding Kitchen Taps)

| Tap Fitting Type | Flow Rate Litres/Min | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Bathroom sink mixer taps | 5 | 3 | 15.00 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 3 |
| Total Flow (l/s) | 15.00 |
| Maximum Flow (l/s) | 5.00 |
| Average Flow (l/s) | 5.00 |
| Weighted Average Flow (l/s) | 3.50 |
| Flow for Calculation (l/s) | 5.00 |

## Showers

| Shower fitting Type | Flow Rate Litres/Min | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Shower over Bath | 8 | 1 | 8.00 |
| Shower | 8 | 1 | 8.00 |
| | | | |
| | | | |
| | | | |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 2 |
| Total Flow (l/s) | 16.00 |
| Maximum Flow (l/s) | 8.00 |
| Average Flow (l/s) | 8.00 |
| Weighted Average Flow (l/s) | 5.60 |
| Flow for Calculation (l/s) | 8.00 |

## Baths

| Bath Type | Capacity to Overflow | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Bath | 180 | 1 | 180.00 |
| | | | |
| | | | |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 1 |
| Total Capacity (l) | 180.00 |
| Maximum Capacity (l) | 180.00 |
| Average Capacity (l) | 180.00 |
| Weighted Average Capacity (l) | 126.00 |
| Capacity for Calculation (l) | 180.00 |

## WCs

| WC Type | Full Flush Volume | Part Flush Volume | Quantity (No) |
|---|---|---|---|
| Dual flush toilet | 4.5 | 3 | 3 |
| | | | |
| | | | |
| | | | |

| | |
|---|---|
| Total number of fittings | 3 |
| Average effective flushing volume | 3.50 |

## Dishwashers

| Dishwasher Type | L per Place Setting | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Dishwasher | 1.25 | 1 | 1.25 |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 1 |
| Total Consumption (l) | 1.25 |
| Maximum Consumption (l) | 1.25 |
| Average Consumption (l/s) | 1.25 |
| Weighted Average Consumption (l) | 0.88 |
| Consumption for Calculation (l/s) | 1.25 |

## Washing Machines

| Washing Machine Type | L per Kg Dry Load | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Washing Machine | 8.17 | 1 | 8.17 |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 1 |
| Total Consumption (l) | 8.17 |
| Maximum Consumption (l) | 8.17 |
| Average Consumption (l/s) | 8.17 |
| Weighted Average Consumption (l) | 5.72 |
| Consumption for Calculation (l/s) | 8.17 |

## Kitchen Taps

| Tap Fitting Type | Flow Rate Litres/Min | Quantity (No.) | Total per Fitting type |
|---|---|---|---|
| Kitchen Tap | 8 | 1 | 8.00 |
| Utility Tap | 8 | | |
| | | | |

| | |
|---|---|
| Total No. of Fittings (No.) | 1 |
| Total Flow (l/s) | 8.00 |
| Maximum Flow (l/s) | 8.00 |
| Average Flow (l/s) | 8.00 |
| Weighted Average Flow (l/s) | 5.60 |
| Flow for Calculation (l/s) | 8.00 |

## Other Fittings

| | |
|---|---|
| Waste Disposal Y/N | N |

## Water softener

| | |
|---|---|
| Consumption beyond 4% l/p/d | |

## Use of grey water and harvested rainwater

| | |
|---|---|
| Total Grey water from WHB taps (l) | |
| Total Available Grey Water Supply (l) | |
| Possible Demand (l) | |
| Grey/Rain Installed Capacity (l) | |
| Figure for Calculation lit/person/day | |