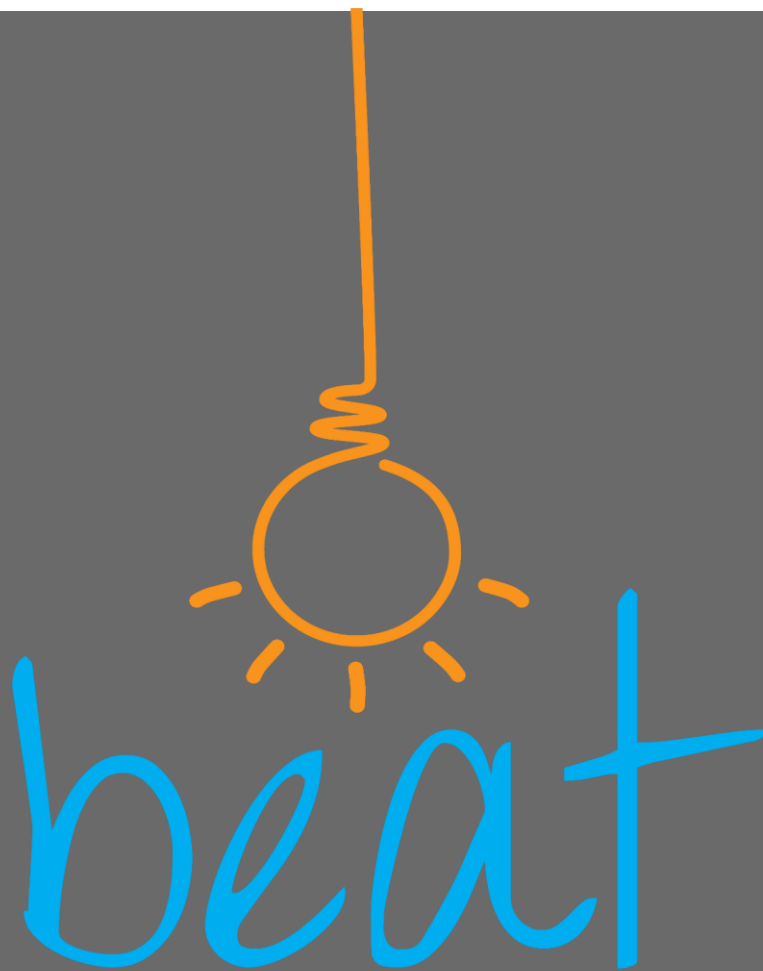




Your sustainable partner

**AS BUILT STAGE
WATER EFFICIENCY
CALCULATION REPORT**

FOR

SOUTHERN DEVELOPMENTS

AT

**PLOT 1
31 FOREST END
WATERLOOVILLE
HAMPSHIRE**

1. Executive Summary

This report has been produced by BEAT Solutions Ltd on 1st July 2024 for Southern Developments to demonstrate compliance with Building Regulation Part G Regulation 17K. This report confirms the water usage for the dwelling to be 109.6 litres/person/day.

2. Introduction

BEAT Solutions have been instructed to calculate the actual water usage for the dwelling based on the As Built specification. This report has been produced by Sophie Pinnick

The methodology used to calculate the water usage is the national approved BRE water efficiency calculation procedure.

A copy of this report should be submitted to the Building Control Officer within 24hrs.

3. Actual Water Fittings Specification

Southern Developments has completed a schedule to confirm the water usage fixtures and fittings. Using this information BEAT Solutions have been able to calculate the overall water usage. Enclosed is a copy of the completed schedule provided by Southern Developments.

4. Compliance Summary

BEAT Solutions Ltd received from the client sufficient information to enable the internal water usage to be calculated. The client confirmed the required target water usage as below. The schedule below confirms the following:-

Plot Type:	Semi-Detached House
Targeted Water Usage:	110.0 litres/person/day
Actual Water Usage:	109.6 litres/person/day
Building Reg Compliant:	Yes
Planning Requirement:	110.0 litres/person/day
Planning Compliant:	Yes

ACTUAL SCHEDULE OF WATER FIXTURES & FITTINGS

Plot / Address		Plot 1, 31 Forest End, Waterlooville , Hampshire, ,			Our Reference	BS-2056/PLOT 1	
No. of Bedrooms	3	Plot/House No.	Plot 1	Plot Type	Semi-Detached House	Occupancy rate for Calculation Purposes 4	
Basin Taps		Flow Rate	Quantity				
Fitting Type	Litres/Min		(No.)				
Imex Ravine (FR) (5l/min)	5.00	3					
Total No. of Fittings (No.)		3					
Total Flow (l/m)		15.00					
Maximum Flow (l/m)		5.00					
Average Flow (l/m)		5.00					
Weighted Average Flow (l/m)		3.50					
Flow for Calculation (l/m)		5.00					
Bath		Capacity to	Quantity				
Type	Overflow		(No.)				
Fresh Cascade (200L)	200.00	1					
Total No. of Fittings (No.)		1					
Total Capacity (l)		200.00					
Maximum Capacity (l)		200.00					
Average Capacity (l)		200.00					
Weighted Average Capacity (l)		140.00					
Capacity for Calculation (l)		200.00					
Dishwasher		L per Place	Quantity				
Type	Setting		(No.)				
Lamona LAM8607 (0.785714285714)	0.79	1					
Total No. of Fittings (No.)		1					
Total Consumption (l)		0.79					
Maximum Consumption (l)		0.79					
Average Consumption (l/m)		0.79					
Weighted Average Consumption (l)		0.55					
Consumption for Calculation (l/m)		0.79					
Kitchen & Utility Taps		Flow Rate	Quantity				
Type	Litres/Min		(No.)				
Abode Rienza Swan Neck (FR) (8l/min)	8.00	2					
Total No. of Fittings (No.)		2					
Total Flow (l/m)		16.00					
Maximum Flow (l/m)		8.00					
Average Flow (l/m)		8.00					
Weighted Average Flow (l/m)		5.60					
Flow for Calculation (l/m)		8.00					
Showers		Flow Rate	Quantity				
Fitting Type	Litres/Min		(No.)				
Imex Ravine (FR) (8l/min)	8.00	1					
Total No. of Fittings (No.)		1					
Total Flow (l/m)		8.00					
Maximum Flow (l/m)		8.00					
Average Flow (l/m)		8.00					
Weighted Average Flow (l/m)		5.60					
Flow for Calculation (l/m)		8.00					
W/C		Full Flush	Part Flush				
Type	Volume	Volume	Quantity (No)				
Imex Super Slim (6/2L)	6.00	2.00	3				
Total number of fittings		3					
Average effective flushing volume		3.32					
Washing Machine		L per Kg	Quantity				
Type	Dry Load	(No.)					
(l/kg)							
Total No. of Fittings (No.)		0					
Total Consumption (l)		8.17					
Maximum Consumption (l)		8.17					
Average Consumption (l/m)		8.17					
Weighted Average Consumption (l)		5.72					
Consumption for Calculation (l/m)		8.17					
Waste Disposal Y/N		N					
Water Softner							
Consumption beyond 4% l/p/d							
Grey water and harvested rainwater							
Total Grey water from WHB taps (l)							
Total Available Grey Water Supply (l)		227.84					
Possible Demand (l)		127.33					
Grey/Rain Installed Capacity (l)							
Figure for Calculation lit/person/day		0.00					

ACTUAL WATER EFFICIENCY CALCULATION

Water Use Assessment

Installation Type	Unit	Capacity/ Flow Rate	Use Factor	Fixed use (l/p/day)	Total Use (l/p/day)
WC Single Flush	Volume (l)	0.00	4.42	0.00	0.00
WC Dual Flush	Full Flush (l)	0.00	1.46	0.00	0.00
	Pt Flush (l)	0.00	2.96	0.00	0.00
WC's (Multiple)	Volume (l)	3.32	4.42	0.00	14.67
Taps Exc. Kitchen	Flow Rate	5.00	1.58	1.58	9.48
Bath (shower present)	(l/s)	200.00	0.11	0.00	22.00
Shower (bath present)	(l/s)	8.00	4.37	0.00	34.96
Bath Only	(l)	0.00	0.50	0.00	0.00
Shower Only	(l/s)	0.00	5.60	0.00	0.00
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)	0.79	3.60	0.00	2.83
Waste Disposal	(l/s)	0.00	3.08	0.00	0.00
Water Softner	(l/s)	0.00	1.00	0.00	0.00
Total Calculated Water Use (l/p/day)					115.0
Grey/RainWater Reused (l)					0.0
Normalisation Factor					0.91
Total Consumption CSH (l/p/day)					104.6
External Water Use Allowance (l)					5.0
Total Consumption Part G (l/p/day)					109.6
Assesment Result					PASS

<< Note - these are default values.



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