DC/23/0460|Demolition of an agricultural building and the erection of a two-storey dwelling (as an alternative to prior approval reference DC/21/2075).

Water Neutrality Statement

Pre-Occupation Condition: The development hereby permitted shall be undertaken in full accordance with the water neutrality statement (Batchelor Monkhouse, dated June 2023). The dwelling hereby permitted shall not be occupied until evidence has been submitted to and been approved in writing by the Local Planning Authority that the installations, appliances and fittings detailed at Appendices A and B to the water neutrality statement have been installed to the indicated standard of efficiency. The installed measures shall be retained as such thereafter.

Background

The new building is a family house located at Mill Farm. The taps specified in the Water Neutrality statement prepared by Batchelor Monkhouse dated June 2023 have been replaced as shown in Appendix A.

The flow rates have been tested on site and the figures shown in the water calculations in Appendix B.

The original calculations are shown below:

Based on 2011 census data for the Horsham District, the average occupancy rate for a 2 bedroom house is 1.88 occupants.

The dwelling will be subject to Horsham District Council's maximum water usage requirement of 110 litres of water per person per day.

Calculations are provided at Appendix A to show the water usage of the proposed dwelling. The calculations show how the dwelling will achieve water usage of **76.01 litres per person per day.**

The proposed 2 bedroom dwelling would therefore use 1.88 x 1 x 76.01 litres = **142.9 litres of water per day or 52,158 litres per year.**

Calculation summary

Installation Type	μ Value	× Usage	+ Fixed	= Total
Single Flush Toilets	0	4.42	0	10.52
Dual Flush Toilets	2.38			
Washrooms Taps	2	1.58	1.58	4.74
Baths Only	90	0.11	0	9.9
Showers Only	4.5	4.37	0	19.66
Kitchen/Utility Taps	2.7	0.44	10.36	11.55
Washing Machine	8.17	2.1	0	17.16
Dishwasher	1.25	3.6	0	4.5
Waste Disposal	☐	3.08	0	0
Water Softener	☐	1	0	0
Grey Water Contribution	0	1	0	0
Rain Water Contribution	0	1	0	0
Total litres / person / day, including a normalisation factor of 0.91:				71.01

Baseline Calculations

The figures shown in the table above were used by Batchelor Monkhouse in the initial water neutrality report – however no grey water use was included in the calculations.

Proposal Demand

For details of water demand see below:

New Barn– as built works

The table below provide a summary of the appliances water consumption. This demonstrates that provided the sanitary fittings are specified following the maximum consumptions outlined below a Total Water Consumption of 65.5 litres/person/day should be achieved at *'as built'* stage. The value in the tables also includes the 5 litres/person/day required by Building Regulations for external water usage in a domestic dwelling. See water calculation in appendix B

Appliance	**Qty.**	**Average Water Usage**	
Kitchen tap*	1	8 litres per minute	
Utility Taps	1	5 Litres per minute	
Wash Hand Basin taps	2	5 litres per minute -	
Cloakroom	1	10 litres per minute	
Showers*	1	6 litres per minute	
Dishwasher*	1	1.25 litres per place setting	
Washing Machine	1	8.17 litres/kg of dry load	
Dual flush toilets	2	Part (capacity in litres)	Full (capacity in litres)
		3.0	6

Total water consumption per day, including external water, is therefore 65.5 litres/person/day allowing for grey water usage.

This figure is then multiplied by the average occupancy of 1.88 totalling **123.14 litres/day**

Water Reduction Measures

No water reduction measures are required

Offsetting measures

Offsetting measures are as Batchelor Monkhouse Water neutrality report using rainwater harvesting.

Conclusion;

The water consumption is less than that proposed in the report by Batchelor Monkhouse dated June 2023 and therefore the proposals comply with the requirements of condition 3.

Appendix A

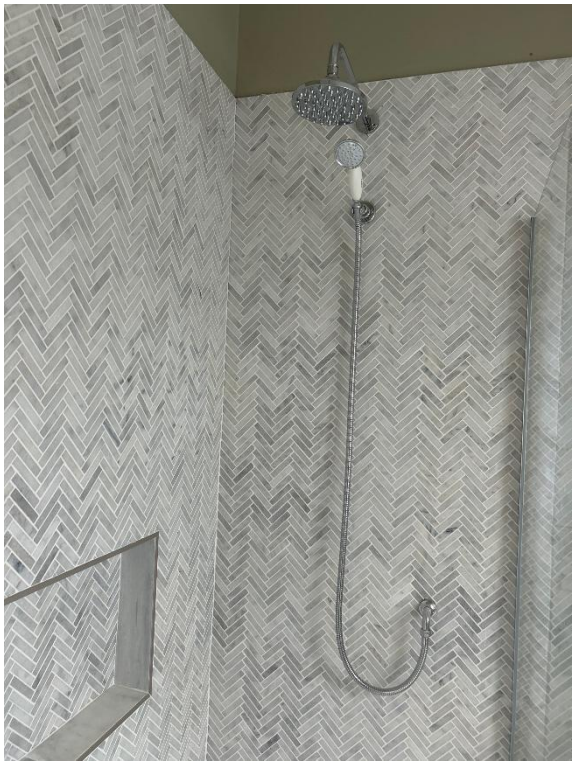
As Built Fittings

Order Details

1 x Chatsworth 1928 Traditional White Lever Freestanding Bath Shower Mixer Tap - TRAD011D-FS
2 x Chatsworth Brushed Brass Traditional Bridge Lever Kitchen Sink Mixer - CHKT11BB
1 x Burlington Stafford Basin Mixer w Pop up waste (includes handles)
1 x Universal Telescopic Basin Bottle Trap - 61020062
2 x Chatsworth Traditional Back To Wall Pan (Excluding Seat) - CBTW
1 x Burlington Close Coupled Traditional Toilet - Ceramic Lever Flush - BUR-P5C1



Bathroom mixer tap



Shower fittings



Cloakroom basin



Ensuite basin



Bathroom basin



Kitchen taps



- Cross head handles with ceramic tap indices
- Supplied with flow straighter - this is for use with low water pressure
- Supplied with aerator - this is for use with high water pressure
- Comes with pop up waste
- Quarter turn valves

Guarantee - 15 Year

Compliance / Approvals

BS 5412:1996

Specification for low-resistance single taps and combination tap assemblies (nominal size 1 and 3) suitable for operation at PN 10 max. and a minimum flow pressure of 0.01 MPa (0.1 bar)

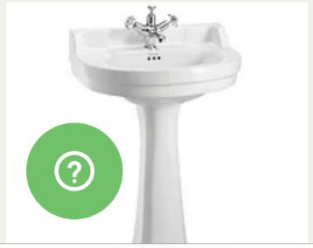
BS EN 200:2008

Sanitary tapware. Single taps and combination taps for water supply systems of type 1 and type 2. General technical specification

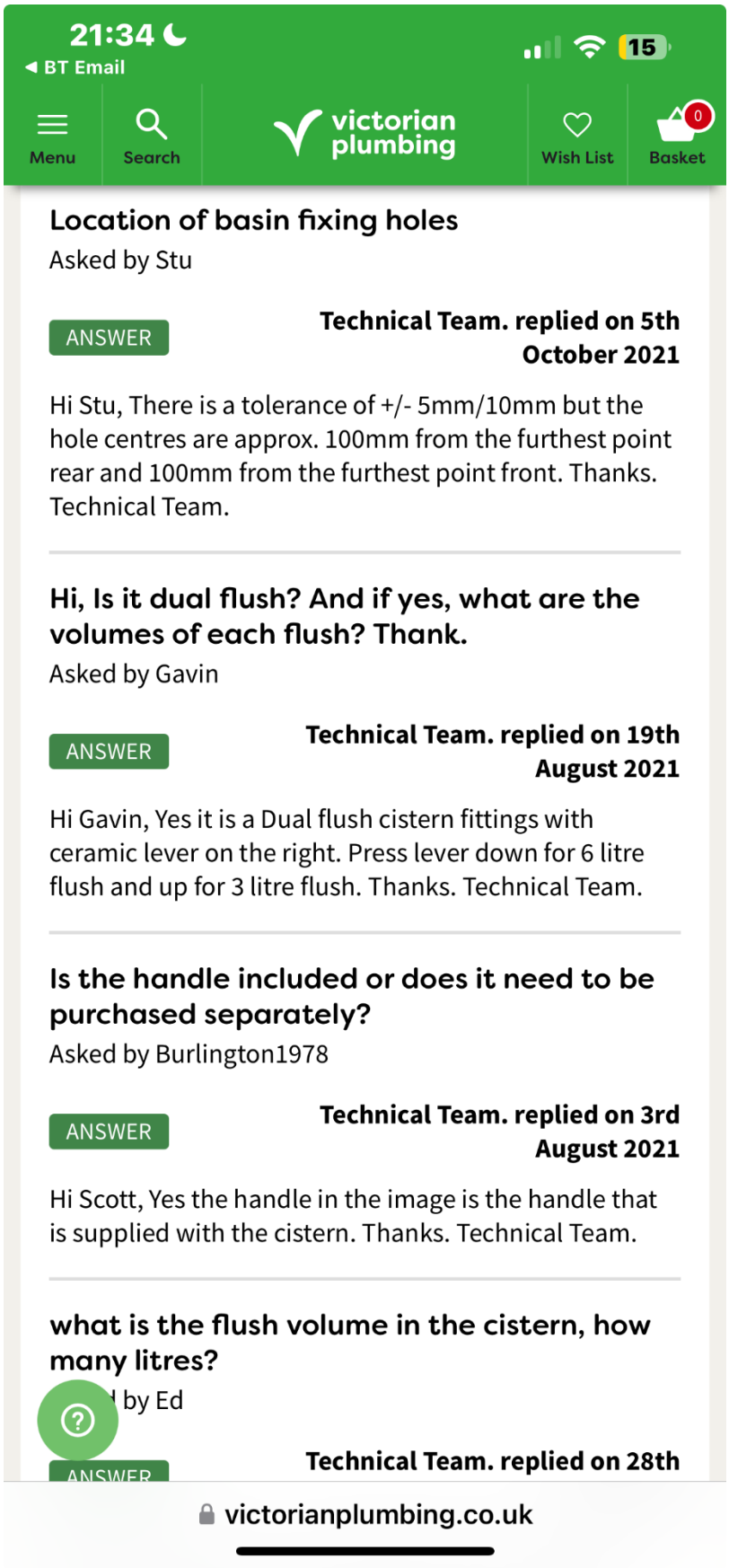
Flow Rates

System Pressure 0.2 bar 0.5 bar 1 bar 2 bar 3 bar
Spout (straightener) 13.83 15.8 21.1 26.3 33.6

Customers Also Bought






21:34
BT Email
15
Menu
Search
victorian plumbing
Wish List
Basket
0
Location of basin fixing holes
Asked by Stu
ANSWER
Technical Team. replied on 5th October 2021
Hi Stu, There is a tolerance of +/- 5mm/10mm but the hole centres are approx. 100mm from the furthest point rear and 100mm from the furthest point front. Thanks. Technical Team.
Hi, Is it dual flush? And if yes, what are the volumes of each flush? Thank.
Asked by Gavin
ANSWER
Technical Team. replied on 19th August 2021
Hi Gavin, Yes it is a Dual flush cistern fittings with ceramic lever on the right. Press lever down for 6 litre flush and up for 3 litre flush. Thanks. Technical Team.
Is the handle included or does it need to be purchased separately?
Asked by Burlington1978
ANSWER
Technical Team. replied on 3rd August 2021
Hi Scott, Yes the handle in the image is the handle that is supplied with the cistern. Thanks. Technical Team.
what is the flush volume in the cistern, how many litres?
by Ed
ANSWER
Technical Team. replied on 28th
victorianplumbing.co.uk

Utility taps

Appendix B

As Built water calculations

Water Efficiency Calculator for New Dwellings (V1e)

Project Details

Address/Reference	The Barn - Mill Farm RH13 0NP	Case Reference	
Number of Bedrooms	2	Occupancy for Calculation Purposes	

Appliance/Useage Details

Taps (Excluding Kitchen Taps)

Tap Fitting Type	Flow Rate Litres/Min	Quantity (No.)	Total per Fitting type
type 1	5.00	2	10.00
cloakr	10.00	1	10.00
			0.00
			0.00
			0.00
			0.00
Total No. of Fittings (No.)		3	
Total Flow (l/s)			20.00
Maximum Flow (l/s)			10.00
Average Flow (l/s)			6.67
Weighted Average Flow (l/s)			7.00
Flow for Calculations (l/s)			**7.00**

Showers

Shower fitting Type	Flow Rate Litres/Min	Quantity (No.)	Total pe Fitting t
			0.0
shower	6.00	2	12.0
			0.0
			0.0
			0.0
			0.0
Total No. of Fittings (No.)		2	
Total Flow (l/s)			12.0
Maximum Flow (l/s)			6.0
Average Flow (l/s)			6.0
Weighted Average Flow (l/s)			4.2
Flow for Calculations (l/s)			**6.0**

Baths

Bath Type	Capacity Overflow	Quantity (No.)	Total per Fitting type
Bath 1st Flr	90.00	1	90.00
			0.00
			0.00
			0.00
Total No. of Fittings (No.)		1	
Total Capacity (l)			90.00
Maximum Capacity (l)			90.00
Average Capacity (l)			90.00
Weighted Average Capacity (l)			63.00
Capacity for Calculations (l)			**90.00**

WCs

WC Type	Full Flush Volume	Part Flus Volume	Quantit y (No)
standard dual	6.00	3.00	
Total number of fittings			3
Average effective flushing volume			3.9

Dishwashers

Dishwasher Type	L per Pla Setting	Quantity (No.)	Total per Fitting type
bosch	1.25	1	1.25
			0.00
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 Calculations (l/s)			**1.25**

Washing Machines

Washing Machine Type	L per Kg Dry Load	Quantity (No.)	Total pe Fitting t
indesit	8.17	1	8.1
			0.0
Total No. of Fittings (No.)		1	
Total Consumption (l)			8.1
Maximum Consumption (l)			8.1
Average Consumption (l/s)			8.1
Weighted Average Consumption (l)			5.7
Consumption for Calculations (l/s)			**8.17**

Kitchen Taps

Tap Fitting Type	Flow Rate Litres/Min	Quantity (No.)	Total per Fitting type
main sink cold	8.00	1	8.00
utility	5.00	1	5.00
			0.00
Total No. of Fittings (No.)		2	
Total Flow (l/s)			13.00
Maximum Flow (l/s)			8.00
Average Flow (l/s)			6.50
Weighted Average Flow (l/s)			5.60
Flow for Calculations (l/s)			**6.50**

Other Fittings

Waste Disposal Y/N	n
Water softner	
Consumption beyond 4% l/p/d	0.00

Use of grey water and harvested rainwat

Total Grey water from WHB t	0
Total Availble Grey Water Su	108.36
Possible Demand (l)	104.38
Grey/Rain Installed Capacity	15000.00
Figure for Calculations lit/per	34.79

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)	3.99	4.42	0.00	17.64
Taps Exc. Kitchen	Flow Rate	7.00	1.58	1.58	12.64
Bath (shower present)	(l/s)	90.00	0.11	0.00	9.90
Shower (bath present)	(l/s)	6.00	4.37	0.00	26.22
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)	6.50	0.44	10.36	13.22
Washing Machines	(l/kg dry)	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	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)					**101.27**
Grey/Rain Water Reused (l)					34.79
Normalisation Factor	(Factor)				0.91
Total Consumption CSH (l/p/day)					**60.50**
External Water Use Allowance (l)					5.00
Total Consumption Part G (l/p/day)					**65.50**

Assesment Result	**PASS**