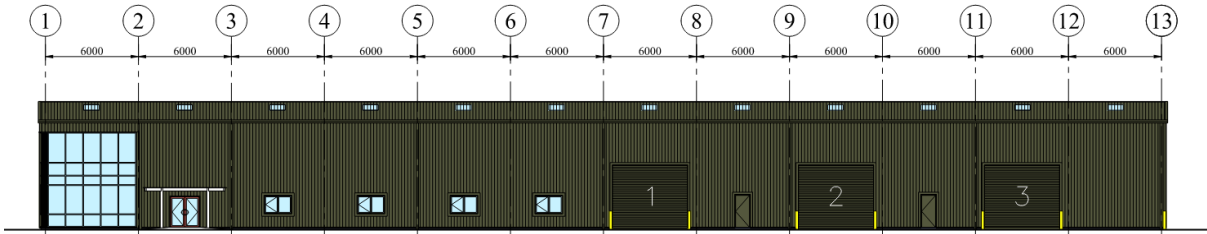


# WATER CONSERATION STATEMENT



**HUWS GRAY LTD,  
PLOT C5,  
PARC CEGIN,  
LLANDEGAI,  
GWYNEDD.**

**JULY 2022  
Suitability S1  
Revision P01**

**Prepared on Behalf of:**

Huws Gray Ltd.,  
Llangefni Ind. Est.,  
Llangefni,  
Anglesey,  
LL77 7JA.

**By:**

Cadarn Consulting Engineers Ltd.  
Suite B,  
Anglesey Business Centre,  
Llangefni,  
Anglesey,  
LL77 7XA

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## **1.0 Introduction**

- 1.1 This Water Conservation Statement is submitted in support of an application for the construction of 1No. commercial building.
- 1.2 Policy PCYFF 6 of the adopted Anglesey and Gwynedd Joint Local Development Plan requires proposals greater than 10000m<sup>2</sup> to be accompanied by a Water Conservation Statement outlining how the development will protect and improve water resources through improved efficiency and demand management of water. This policy explains that there are several ways which water conservation can be achieved including water saving devices, rainwater harvesting and grey water recycling.
- 1.3 Water usage is known to be closely linked to user behaviour. However, several water efficiency measures are to be incorporated into the design of the proposed development which will save significant amounts of water and energy.

## 2.0 Regulation & Guidance

2.1 The water efficiency measures outlined within this Statement have been devised in accordance with the following policies and guidance documents:

- Welsh Government Practice Guidance: Planning for Sustainable Buildings
- AECB: Water Standards: Delivering Buildings with Excellent Water and Energy Performance
- The Water Efficiency Calculator for New Dwellings (DCLG 2009)
- BS 8542:2011 : Calculating domestic water consumption in non-domestic buildings. Code of practice

### 3.0 The Measures

- 3.1 The proposed development consists of 1No. commercial building, and the following measures will be incorporated into the design of the building in order to ensure reduced water usage and encourage water recycling:
- 3.2 Water Consumption - The consumption of water by persons occupying the building will not exceed 18L/person/day, calculated in accordance with the methodology set out in British Standard 8542 : 2011 Calculating domestic water consumption in non-domestic buildings – Code of Practice (Appendix A)
- 3.3 Regulated Flow - Regulated flow to individual fittings to stabilise flow rates and temperatures throughout the system.
- 3.4 Fittings - Regulated aerated basin tap fittings to prevent waste through splashing water and reduce flow rate to <1.7L/min. Kitchen taps flow rate of <6L/min. Urinals shall be “flush per use”, with a volume of 3.75L. W.C.’s shall have a flush volume <4.5L
- 3.5 Heating and Hot Water - The development will incorporate an efficient mechanical design and compact electric heating layout to reduce the lag time for water to run hot, reduce water consumption and ensure that all forms of generating heat are carbon free.
- 3.6 The design of the plumbing systems will be installed in accordance with BS 6700 and the “ideal” / minimum flow rates specified therein for any given type of draw-off / sanitary appliance.

## **APPENDICES**

**APPENDIX A - Calculating of domestic water consumption in non-domestic building, in accordance with – BS8542: 2011 Code of Practice**



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 Client : Huws Gray Ltd.  
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CADARN Consulting Engineers Ltd., Suite B, Anglesey Business Centre, Llangefni, Ynys Môn, LL77 7XA. T. 01407730912.

### Calculating of domestic water

#### consumption in non-domestic building, in accordance with – BS8542 : 2011 Code of Practice

<b>SANITARY WATER CONSUMPTION</b>					
FITTING TYPE	PERFORMANCE	FREQUENCY OF USE	INTENSITY OF USE	MALE TO FEMALE RATIO	LITRES / PERSON / DAY
WC (MALE)	4.500	1.000	1.000	0.500	2.250
WC (DIS)	4.500	1.000	1.000	0.500	2.250
<b>LITRES / PERSON / DAY</b>					<b>4.500</b>

FITTING TYPE	PERFORMANCE	FREQUENCY OF USE	INTENSITY OF USE	MALE TO FEMALE RATIO	LITRES / PERSON / DAY
URINAL - USE-ACTIVATED FLUSH CONTROL	3.750	2.000	1.000	0.500	3.750
<b>LITRES / PERSON / DAY</b>					<b>3.750</b>
FITTING TYPE		FLOW RATE	FREQUENCY OF USE	INTENSITY OF USE	LITRES / PERSON / DAY
TAPS (PERSONAL HYGIENE)		1.700	4.000	0.250	1.700
<b>LITRES / PERSON / DAY</b>					<b>1.700</b>

<b>CULINARY WATER CONSUMPTION</b>					
TERMINAL FITTING TYPE		FLOW RATE	USE / PERSON / DAY	INTENSITY OF USE	LITRES / PERSON / DAY
TAPS (KITCHEN CLEANING)		12.000	1.000	0.440	5.280
<b>LITRES / PERSON / DAY</b>					<b>5.280</b>
FIXED USAGE	WATER USE PER COVER	FLOOR AREA	NUMBER OF COVERS PER M <sup>2</sup>	NUMBER OF OCCUPANTS	LITRES / PERSON / DAY
FOOD PREP	2.340	12.700	0.822	10.439	2.340
<b>LITRES / PERSON / DAY</b>					<b>2.340</b>

<b>WATER CONSUMPTION</b>		
GROSS WATER CONSUMPTION	WATER SAVINGS	NET WATER CONSUMPTION
17.570	0.000	17.570
<b>LITRES / PERSON / DAY</b>		<b>17.570</b>

<b>ANNUAL WATER CONSUMPTION</b>		
GROSS	WATER SAVINGS	NET
96.785	0	96.785
<b>m3 PER YEAR</b>		<b>96.785</b>

Based on warehouse occupancy, operating 253 days of the year, 8 hours per day, with staff ratio of 0.0108 persons per m<sup>2</sup>

Total Building Area	Length	72
	Width	28
	Area (m <sup>2</sup> )	2016
Occupancy ratio	persons / m <sup>2</sup>	0.0108
Persons	(No.)	22
Operating days per year	(default)	253