

Project Information

Building type Detached house

Reference

Date 20 January 2015

Client Spencer Cullis
Cullis Architecture Design
25 Sunningdale Close
Wrexham
LL139QU

Project Alexandria
Blackwood Road
Garth
LLANGOLLEN
LL207YL

Daryl Price

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SAP 2009 input data Printed on 17 Feb 2015 at 09:19 AM

Alexandria replacement dwelling

Alexandria
Blackwood Road
Garth
LLANGOLLEN
LL207YL

Located in: England or Wales
Region: West Pennines
Postcode: LL207YL
UPRN: 8496733078
Date of assessment: 2015-01-20
Date of certificate: 2015-02-17
Assessment type: New dwelling as built
Tenure: Unknown
Transaction type: New dwelling
Related party disclosure: No related party

Property description

Dwelling type: Detached house
Ground floor (1) area = 89.87m² storey height = 2.37m
First floor area = 89.87m² storey height = 2.60m

Living area: 23.03 (fraction 0.128)

Front of dwelling faces: NorthWest

Doors

Solid door area = 1.92 U = 3.00
Full glazed door area = 5.13 U = 1.62

Full glazed door area = 1.88 U = 1.62

- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthEast)
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Windows

Window area = 2.07 U = 1.62

Overshading: Average or unknown (20-60 % sky blocked)

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Window area = 2.07 U = 1.62

- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthEast)

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Overshading: Average or unknown (20-60 % sky blocked)

Window area = 1.56 U = 1.62

- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthWest)

Overshading: Average or unknown (20-60 % sky blocked)

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Window	area = 2.07	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 1.56	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 1.89	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthEast)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 2.07	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 0.68	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthEast)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 1.31	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 2.07	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthEast)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 0.75	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 1.56	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (SouthWest)
Overshading:	Average or unknown (20-60 % sky blocked)		
Window	area = 1.56	U = 1.62	- Double-glazed, argon filled, low-E, En=0.1, soft coat (NorthEast)
Overshading:	Average or unknown (20-60 % sky blocked)		
Rooflights			
Opaque Elements			
Roofs	area = 81.20	U = 0.11, k = 9.0	73.12669 + (5.02 x .89) + (1.3 x .538) + (3 x 1.8 x .538) = 81.199
Walls	area = 73.37	U = 0.15, k = 60.0	First floor: 2.165 x (6.065 + 11.41) + .452 x (1.36 + 1.8 + 1.8 + 1.8) + 2 x 19.345069 = 79.579
Walls	area = 77.54	U = 0.15, k = 60.0	Ground floor walls: 39.57 x 2.617 = 103.55469
Ground floors	area = 89.87	U = 0.11, k = 110.0	2 no 70mm K3 ground bearing slab
Roofs	area = 11.24	U = 0.11, k = 9.0	.7 x ((11.41 + 11.41) - ((1.36 + (3 x 1.8)x)) = 11.242

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Thermal bridges:	Htb = 18.88		
E1 Steel lintel with perforated steel base plate [A] E1 Ins Lintel ECDMV01	0.500	0.010	24.780
E-1 other type 1 [D] E-1	0.000	0.000	0.000
E10 Eaves (insulation at ceiling level) [A] E10 RCD	0.060	0.111	11.780
E11 Eaves (insulation at rafter level) [A] E11 Eaves Ins Rafters RCD	0.040	0.004	11.040
E12 Gable (insulation at ceiling level) [A] E12 Gable Ins Ceiling RCD	0.240	0.052	19.990
E13 Gable (insulation at rafter level) [A] E13 Gable Ins rafters RCD	0.040	0.059	2.800
E14 Flat roof [D] E14	0.000	0.080	0.000
E15 Flat roof with parapet [D] E15	0.000	0.560	0.000
E16 Corner (normal) [A] E16 Corner RCD	0.090	0.051	18.132
E17 Corner (inverted – internal area greater than external area) [A] E17 Inverted corner RCD	-0.090	-0.076	9.970
E18 Party wall between dwellings ¹ [D] E18	0.060	0.120	0.000
E19 Ground floor (inverted) [D] E19	0.000	0.070	0.000
E-2 other type 1 [D] E-2	0.000	0.000	0.000
E2 Other lintels (including other steel lintels) [D] E2	0.300	1.000	0.000
E20 Exposed floor (normal) [D] E20	0.000	0.320	0.000
E21 Exposed floor (inverted) [D] E21	0.000	0.320	0.000
E22 Basement floor [D] E22	0.000	0.070	0.000
E23 Balcony within or between dwellings, balcony support penetrates wall insulation [D] E23	0.000	1.000	0.000
E24 Eaves (insulation at ceiling level - inverted) [D] E24	0.000	0.240	0.000
E25 Staggered party wall between dwellings ¹ [D] E25	0.000	0.120	0.000
E3 Sill [A] E3 Sill ACD	0.040	0.040	24.780

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E4 Jamb [A] E4 Jamb ACD	0.050	0.050	44.280
E5 Ground floor (normal) [D]	0.160	0.320	39.570
E5			
E6 Intermediate floor within a dwelling [A] E6 Intermediate Floor RCD	0.070	0.001	39.570
E7 Intermediate floor between dwellings (in blocks of flats) ¹ [D] E7	0.070	0.140	0.000
E8 Balcony within a dwelling, wall insulation continuous ² [D] E8	0.000	0.000	0.000
E9 Balcony between dwellings, wall insulation continuous ^{1 2} [D] E9	0.020	0.040	0.000
P1 Ground floor [D] P1	0.000	0.160	0.000
P-1 Gable (insulation at ceiling level) [D] P-1	0.120	0.240	0.000
P2 Intermediate floor within a dwelling [D] P2	0.000	0.000	0.000
P-2 Gable (insulation at rafter level) [D] P-2	0.020	0.040	0.000
P3 Intermediate floor between dwellings (in blocks of flats) [D] P3	0.000	0.000	0.000
P4 Roof (insulation at ceiling level) [D] P4	0.000	0.240	0.000
P5 Roof (insulation at rafter level) [D] P5	0.000	0.080	0.000
P6 Ground floor (inverted) [D] P6	0.000	0.070	0.000
P7 Exposed floor (normal) [D] P7	0.000	0.160	0.000
P8 Exposed floor (inverted) [D] P8	0.000	0.240	0.000
R1 Head of roof window [D] R1	0.000	0.080	0.000
R2 Sill of roof window [D] R2	0.000	0.060	0.000
R3 Jamb of roof window [D] R3	0.000	0.080	0.000
R4 Ridge (vaulted ceiling) [D] R4	0.000	0.080	0.000
R5 Ridge (inverted) [D] R5	0.000	0.040	0.000
R6 Flat ceiling [D] R6	0.000	0.060	0.000
R7 Flat ceiling (inverted) [D] R7	0.000	0.040	0.000
R8 Roof to wall (rafter) [D] R8	0.000	0.060	0.000

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R9 Roof to wall (flat ceiling)	0.000	0.040	0.000
[D]R9			

Thermal mass:	Calculated from k values
Pressure test:	Yes (q50 - 2.07) : measured in this dwelling : Yes
Ventilation:	Natural ventilation with intermittent extract fans
Number of chimneys:	0
Number of open flues:	1
Number of intermittent fans:	5
Number of passive stacks:	0
Number of sides sheltered:	2.00
Measured/design q50:	2.07

Main heating system:	Central heating systems with radiators or underfloor heating
	Oil boilers
	Condensing boiler
	Index : 15323
	Eff 80.20% / 91.90% Mistral CKUT1 15/20
	Radiators
	Pump in heated space: Yes
	Oil Pump in heated space: Yes
	Boiler has load or weather compensator: No
	Boiler Interlock: Yes
	Design flow temperature : Unknown
	Central heating pump 2013 or later
	Heating oil

Main heating controls:	Time and temperature zone control
Boiler has load compensator:	No
Boiler has weather compensator:	No
Boiler has enhanced load compensator:	No
Boiler interlock:	Yes

Secondary heating system:	Room heater systems
	Solid fuel
	Closed room heater
	Wood logs
	Wood logs - Exempted appliances only if the dwelling is in a Smoke Control Area.
	Solid fuel room heater is HETAS approved: Yes

Water heating:	Hot water storage tank
	Manufacturer's declared cylinder loss factor (kWh/day) 2.30
	Cylinder volume: 210.00
	Insulation type : Factory

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Insulation thickness : 60.00
Cylinder heater : Boiler feed
Cylinder in heated space: Yes
Insulated primary: Yes
Cylinder thermostat: Yes
Separate timer for domestic hot water: Yes
Solar panel: no

Water use <= 125
litres/person/day:

Yes

Low energy lights: 100.0% of fixed lighting outlets

Total fixed lighting outlets: 38

Electricity tariff: Standard tariff

Photovoltaics 1: Peak kW: 0.00

Photovoltaics 2: Peak kW: 0.00

Photovoltaics 3: Peak kW: 0.00

Conservatory: No

Fixed air conditioning: No

Smoke Control Area: Not specified

Additional allowable electricity generation :

0.00kg/m²/year