

## Project name Wilkinson Primary School

**Project summary** WINNER of the UK Passivhaus Awards 2015 - Wilkinson Primary School is a 2nd generation Passivhaus primary school designed by Architype. Taking the brief beyond the necessary requirements, Architype addressed the schools future needs as a 21st century learning environment, introducing a number of innovations to improve the performance and sustainability of the building.



## Project Description

Projected build start date

Projected date of occupation

Project stage Occupied

Project location Wolverhampton, West Midlands, England

Energy target PassivHaus

Build type New build

Building sector Public

Property type Detached

Existing external wall construction

Existing external wall additional information

Existing party wall construction

Floor area 2494.3 m<sup>2</sup>

Floor area calculation method PHPP

Building certification Passivhaus certified

## Project team

Organisation Wolverhampton City Council

Project lead

Client Wolverhampton City Council

Architect Architype

Mechanical & electrical consultant(s) E3 Consulting Engineers

Energy consultant(s) Elemental Solutions

Structural engineer Price & Myers

Quantity surveyor

Other consultant Certifier - WARM: Low Energy Building Practice

Contractor Thomas Vale Construction

## Design strategies

Planned occupancy

Space heating strategy

Water heating strategy

Fuel strategy

Renewable energy generation strategy

Passive solar strategy

Space cooling strategy

Daylighting strategy

Ventilation strategy

Airtightness strategy

Strategy for minimising thermal bridges

Modelling strategy

Insulation strategy

Other relevant retrofit strategies

Other information (constraints or opportunities influencing project design or outcomes)

## Energy use

Fuel use by type (kWh/yr)

Fuel	previous	forecast	measured
<b>Electric</b>			
<b>Gas</b>			
<b>Oil</b>			

Fuel	previous	forecast	measured
<b>LPG</b>			
<b>Wood</b>			

#### Primary energy requirement & CO2 emissions

	previous	forecast	measured
<b>Annual CO2 emissions</b> (kg CO2/m <sup>2</sup> .yr)	-	-	-
<b>Primary energy requirement</b> (kWh/m <sup>2</sup> .yr)	-	-	-

#### Renewable energy (kWh/yr)

Renewables technology	forecast	measured
-		
-		
<b>Energy consumed by generation</b>		

#### Airtightness ( m<sup>3</sup>/m<sup>2</sup>.hr @ 50 Pascals )

	Date of test	Test result
Pre-development airtightness	-	-
Final airtightness	-	-

#### Annual space heat demand ( kWh/m<sup>2</sup>.yr )

	Pre-development	forecast	measured
<b>Space heat demand</b>	-	-	-

Whole house energy calculation method

Other energy calculation method

Predicted annual heating load

-

Other energy target(s)

## Building services

Occupancy

Space heating

Hot water

Ventilation

Controls

Cooking

Lighting

Appliances

Renewables

Strategy for minimising thermal bridges

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## Building construction

Storeys

Volume

Thermal fabric area

Roof description

Roof U-value

Walls description

Walls U-value

Party walls description

Party walls U-value

Floor description

Floor U-value

Glazed doors description

Glazed doors U-value

Opaque doors description

Opaque doors U-value

Windows description

Windows U-value

Windows energy transmittance  
(G-value)

Windows light transmittance

Rooflights description

Rooflights light transmittance

Rooflights U-value

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## Project images







