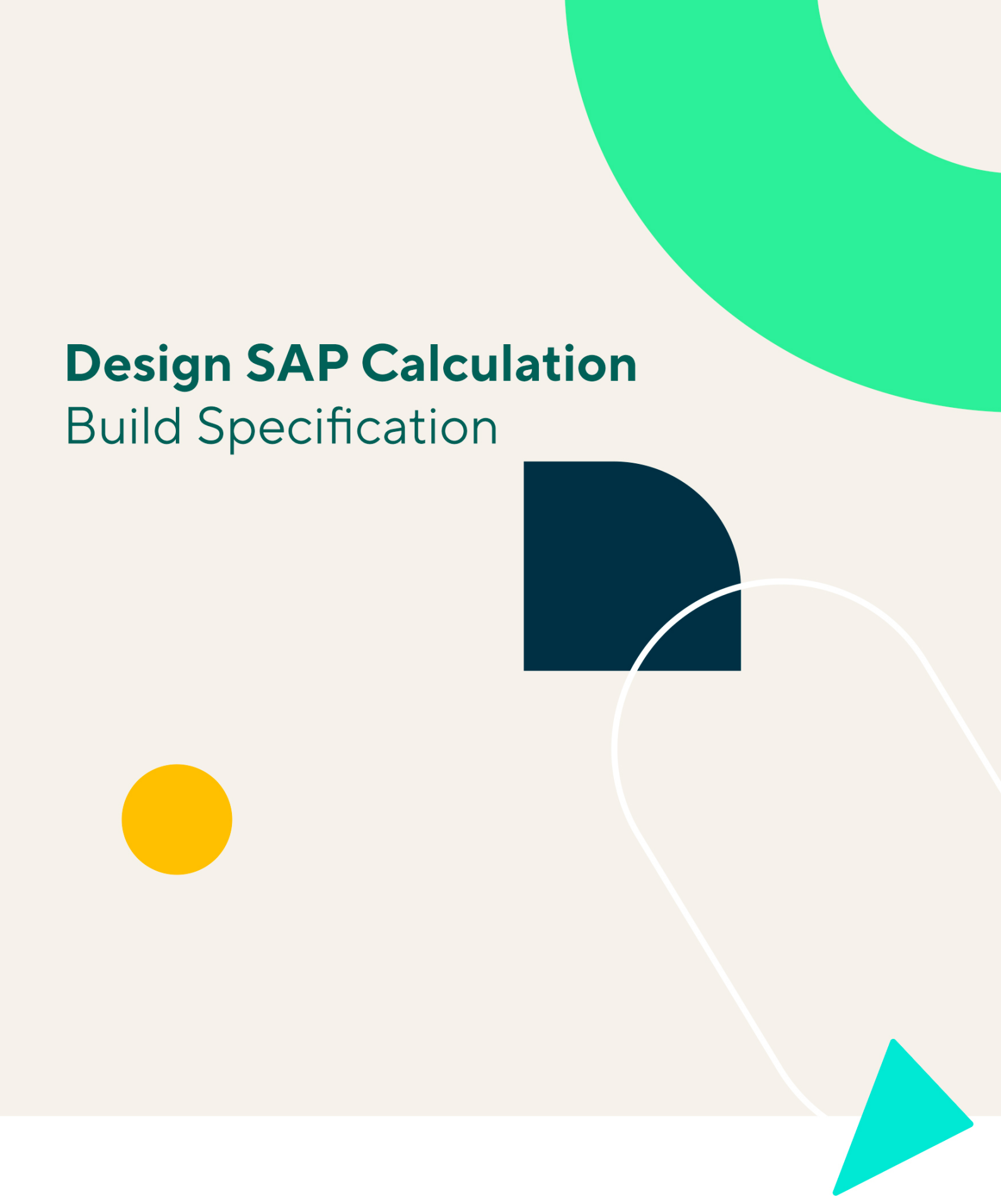




Design SAP Calculation

Build Specification

SAP Design Specification

Purpose of this Document

This document has been created to assist house builders in maintaining a clear and consistent specification for each dwelling type. It serves as a useful reference for both historic builds and future developments. It's taken a little extra time to put together – but we're always looking to add value where we can.

Site Address	2, 4, 6 Water Road, 158 Dee Road, Reading, Berkshire, RG30 4BU
Dwelling Types	3
Plot Numbers	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
Date	6th Nov 2025
Revision	1

Important – Please Read

To issue your EPC and As Built documentation, we must have photographic evidence at key build stages. This is a strict requirement due to regular audits – no photos means no documents.

To make this easier, please use this application that we highly recommend:

www.SAPAPP.co.uk



It tells you exactly what photos are needed and when to take them.



Client & Job Information

Company Name	YOOP Architects	Contact Name	Martin Wright
Unique ID	HwfLczg5	Job Reference	S37632
Type References	Type A, B, C		
Plot Types	3	Plot Numbers	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
Site Address	2, 4, 6 Water Road, 158 Dee Road, Reading, Berkshire, RG30 4BU		
Approx. Build Time	12 - 18 Months		
Building Regulations	England Building Regulations Part L 2022		
EPC Target	Unknown		
BFRC / FENSA Certificate	No	MCS Certificate	No
Required Services	SAP-New Build, Simplified Overheating , Water Calculation		



Floor Construction

Floor 1

Includes Ground Floor	Yes	Insulation	PIR
Insulation Thickness	150mm	Screed Thickness	75mm
Subfloor Construction Material	Concrete Slab	Subfloor Construction Thickness	200mm



Floor Construction

Floor 2

Includes Ground Floor	No	Building Below Heated	No
Below Joist Insulation		Below Joist Insulation Thickness	0mm
Below Joist Insulation Brand	Not Specified	Between Joist Insulation	Timber
Between Joist Insulation Thickness	100mm	Between Joist Insulation Brand	Not Specified
Floor Covering Material	Timber	Floor Covering Thickness	19mm



Wall Construction

External Wall 1

Wall Type	Masonry Cavity	Outer Leaf Material	Brick
Outer Leaf Thickness	103.0mm	Insulation	PIR
Insulation Thickness	100.0mm	Insulation Brand	Not Specified
Cavity Size	50mm	Cavity Ventilated	No
Inner Leaf Material	Block	Inner Leaf Thickness	100.0mm
Inner Leaf Product	NA	Wall Covering	Plasterboard & Skim
Wall Covering Thickness	12.5mm		



Wall Construction

External Wall 2

Wall Type	Masonry Cavity	Outer Leaf Material	Block
Outer Leaf Thickness	100.0mm	Insulation	PIR
Insulation Thickness	100.0mm	Insulation Brand	Not Specified
Cavity Size	50mm	Cavity Ventilated	No
Inner Leaf Material	Block	Inner Leaf Thickness	100.0mm
Inner Leaf Product	NA	Wall Covering	Plasterboard & Skim
Wall Covering Thickness	12.5mm		



Wall Construction

External Wall 3

Wall Type	Timber Frame	Outer Leaf Material	
Outer Leaf Thickness	18.0mm	Cavity Size	0mm
Cavity Ventilated	No	Sheathing Board Material	Brick
Sheathing Board Thickness	9.0mm	Stud Thickness	160.0mm
Stud Centre Spacing	400mm		
Insulation Between Studs	PIR	Insulation Thickness Between Studs	125.0mm
Insulation Brand Between Studs	Not Specified	Insulation Over Studs	PIR
Insulation Thickness Over Studs	40.0mm	Insulation Brand Over Studs	Not Specified
Wall Covering	Plasterboard & Skim		
WallCovering Thickness	12.5mm		



Roof Construction

Roof Construction 1

Roof Type	Sloped Roof (Cold)	Insulation Between Rafter	PIR
Insulation Thickness Between Rafter	180mm	Insulation Brand Between Rafter	Not Specified
Insulation Below Rafter	PIR	Insulation Thickness Below Rafter	70mm
Insulation Brand Below Rafter	Not Specified	Ventilated Void	Yes
Ceiling Covering	Plasterboard & Skim	Ceiling Covering Thickness	13mm



Roof Construction

Roof Construction 2

Roof Type	Flat Roof (Warm)	Insulation Over Joists	PIR
Insulation Thickness Over Joists	200mm	Insulation Brand Over Joists	NA
Insulation Between Joists	Mineral Wool	Insulation Thickness Between Joists	150mm
Insulation Brand Between Joists	NA		



Roof Construction

Roof Construction 3

Roof Type	Flat Roof (Warm)	Insulation Over Joists	PIR
Insulation Thickness Over Joists	200mm	Insulation Brand Over Joists	NA
Insulation Between Joists	None	Insulation Thickness Between Joists	170mm
Insulation Brand Between Joists	NA		



Openings

Windows

Type	Double Glazing	U-Value	1.30W/m² K
G-Value	0.63		

Solid Doors

U-Value	1.40W/m² K		
---------	------------	--	--

Glazed Doors

U-Value	1.40W/m² K	G-Value	0.63
---------	------------	---------	------

Roof Lights

U-Value	0.00W/m² K	G-Value	0.00
---------	------------	---------	------



Heating & Ventilation

Heating System

Source	ASHP
Heating Emitters	Radiators & Underfloor Heating

Water Heating

Cylinder Make	Tbc	Cylinder Model	Tbc
Cylinder Size	200 Litres		
Heating Controls	Time and Temperature Zone Control		
Secondary Heating	None		

Ventilation

Vent Type	Intermittent Extract - System 1
-----------	---------------------------------

PV

Any PV?	No	Output	0kW
PV Specifics	NA		
With Battery?	No	Battery Size	0kW

Other Renewables

Other Renewables



SAP Timeline Checklist

This checklist helps you keep track of the key compliance steps needed during your build and at the finalisation stage. Tick off each step as you go. ATSPACE can assist with every stage.

Site Stage

- ☐ Take **photographs at the stipulated Part L key stages** (use [SAPAPP.co.uk](https://www.sapapp.co.uk) to ensure correct evidence is captured do not rely on your own interpretation of "key stages")
- ☐ Follow the agreed design specification (inform us of any changes to insulation, heating, or renewables, as these may affect compliance)
- ☐ Complete your **Water Consumption Calculation** (Part G) ATSPACE can assist
- ☐ Complete your **Overheating Assessment** (Part O) ATSPACE can assist
- ☐ Arrange your **Air-Tightness Test** - ATSPACE can assist
- ☐ Arrange your **Ventilation Flow Rate Test** (Part F) - ATSPACE can assist
- ☐ If required, arrange your **Sound Insulation Testing** (Part E - party wall/floor) - ATSPACE can assist

Finalisation Stage

- ☐ Send the **Air-Tightness Certificate** to your SAP Assessor (we cannot finalise without this)
- ☐ Provide the **BFRC certificate** for your windows (if declared in your glazing specification)
- ☐ Supply a **full photographic report** showing the **stipulated Part L stages** captured clearly



Pre-Completion Sign-Off

- ☐ A Dwelling Sign-Off Report
- ☐ A Thermal Bridging Report

Completion

- ☐ As-Built Specification & Documentation
- ☐ OCEPC - On-Construction Energy Performance Certificate

Need Support?

For guidance at any stage of your build, contact **ATSPACE Ltd**:

Tel: 0345 6465 454

Email: energy@atspaceltd.com

www.atspaceltd.co.uk



Your One-Stop Shop for Compliance

We offer most major compliance services under one roof, giving you a single point of contact for everything you need – saving you time, hassle, and unnecessary costs.

That's why we're proud to be rated No.1 on Google by businesses just like yours.

DESIGN & PLANNING SERVICES

- ✓ Energy Statements
- ✓ Water Efficiency Calculations
- ✓ SAP Calculations
- ✓ Overheating Assessment
- ✓ SBEM Calculations
- ✓ Overglazed Extension Calculations
- ✓ U-Value Calculations
- ✓ PSI Values

ENERGY CERTIFICATION

- ✓ New Build/Conversion Commercial EPC Certification
- ✓ New Build/Conversion Domestic EPC Certification

PART-BUILT SERVICES

- ✓ Diagnostic Air Leakage Testing
- ✓ Pre-Improvement Sound Insulation Testing
- ✓ Air Leakage On Site Design Advice
- ✓ Diagnostic Smoke Testing

AS-BUILT SERVICES

- ✓ Commercial Air Leakage Testing
- ✓ Residential Air Leakage Testing
- ✓ Retrofit Air Leakage Testing
- ✓ Passive House Air Leakage Testing
- ✓ Ventilation Flow Rate Commissioning / Balancing
- ✓ Sound Insulation Testing
- ✓ Smoke Shaft Air Leakage Testing
- ✓ Smart HTC
- ✓ Background Ventilation

We've got a YouTube channel dedicated to answering the most common compliance queries.

Check us out here: [ATSPACE YouTube](#)

Download Our Brochure

Check us out here: [ATSPACE Brochure \(PDF\)](#)

Visit Our Website: www.atspaceltd.co.uk

12,000+ Companies

