



# Maintaining a Passivhaus Building

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# Maintenance: a definition

- ‘Take action to preserve in good order’
- ‘The work of keeping things in good condition’



# Building maintenance: four key areas

- Response repairs
- Planned preventative maintenance
- Cyclical works
- Major repairs



# Role of IT

Hastoe uses Keystone as Asset Management Database to:

- Manage compliance
- Maintain and analyse Stock Condition Data
- Servicing regime



# Hastoe stock breakdown

- Total number of dwellings: 5439
- number of flats: 1805
- number of houses: 3590
- 28 passivhaus units built/occupied (0.5%)
- A further 100 passivhaus units in development (2.4%)



# Facts and figures

- Response repairs:  
£1,668,500 (£306)
- Cyclical works:  
£867,909
- Major works:  
£3,987,686
- 73/27% split between  
planned and  
responsive
- Number of responsive  
repairs annually:  
approx. 9000
- 20% level of  
variations
- Ave response  
maintenance cost of  
£113.25



# Housing maintenance model

- Measured term contracts
- NHF Schedule of Rates
- Regionally based multi-traders and sub contractors



# Housing customer services

- Dedicated team: Hastoe Direct deals with all forms of customer enquiries
- Orders raised in Genero IT system
- Customer agents diagnose repairs using Locator Plus
- Passivhaus units are flagged to alert when maintenance orders raised





# The requirement of Passivhaus maintenance

- Additional information requirements above and beyond usual new build
- Maintenance activities and scope



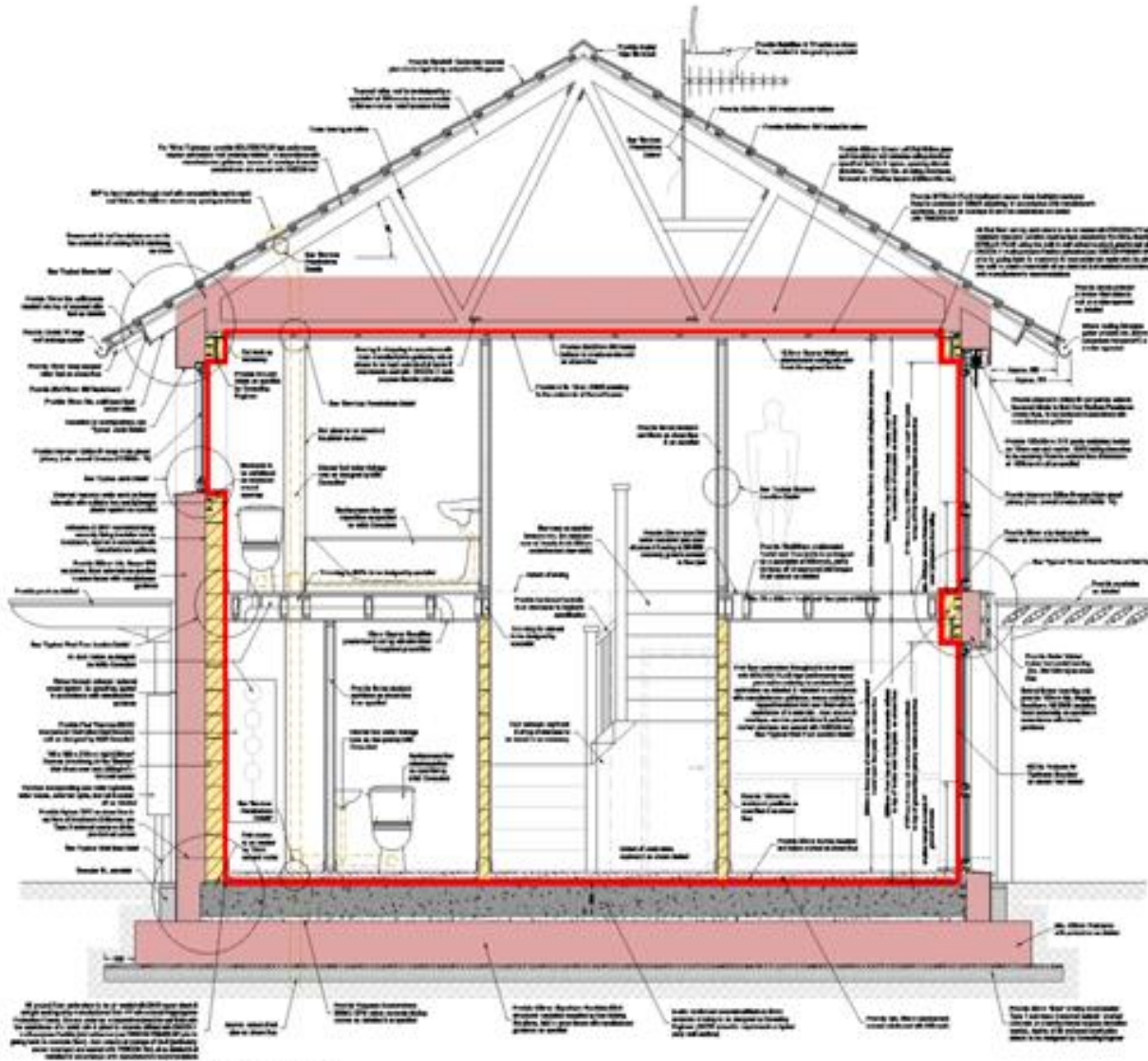
**GENERAL NOTES**

DRAWING TO BE READ IN CONJUNCTION WITH BIDDER'S  
JACOBS FILE DRAWING 2017.01.01 & WITH 'CONSTRUCTION  
& DESIGN & TECHNICAL SPEC'

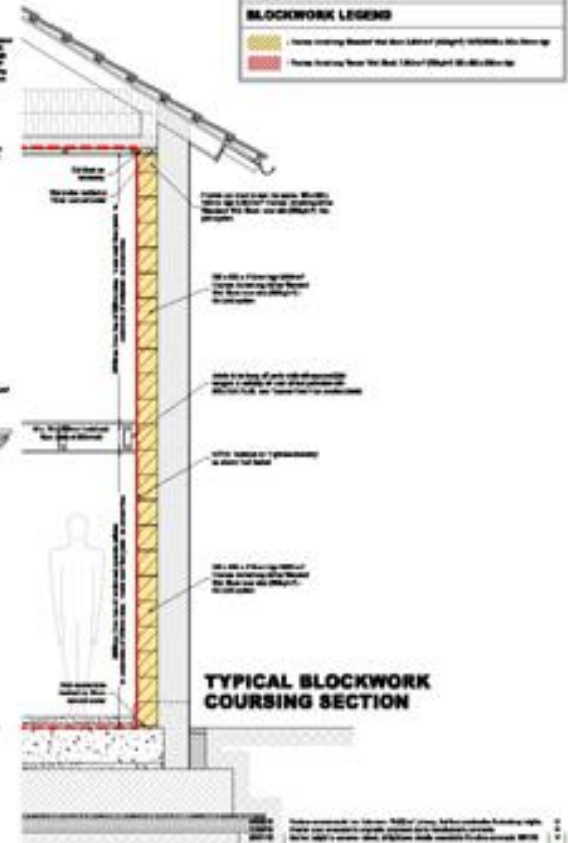
**AIR PERMEABILITY TESTING**  
As per the relevant British Standard BS 5251-2:2007  
For further information see the relevant sections of the  
Specification for the relevant work to be undertaken in the  
relevant areas.

**BLOCKWORK LEGEND**

- Yellow hatched blockwork: First Floor Wallwork (Solid Blockwork) (1000mm dia hole up)
- Red hatched blockwork: First Floor Wallwork (Solid Blockwork) (1000mm dia hole up)



**TYPICAL 3BED SECTION**



**TYPICAL BLOCKWORK COURSING SECTION**

2805.19  
FOR CONSTRUCTION





# Challenges for future Passivhaus design

- Producing a set of standard details
- Designing fixing details for windows and doors so that they can simply be renewed by unbolting rather than cutting out.
- Standardising MVHR systems with easy clean reusable filters.
- Tackling Condensation in roof spaces/external walls
- Mould growth on external walls



# Cluttered loft





# Algae on external walls

