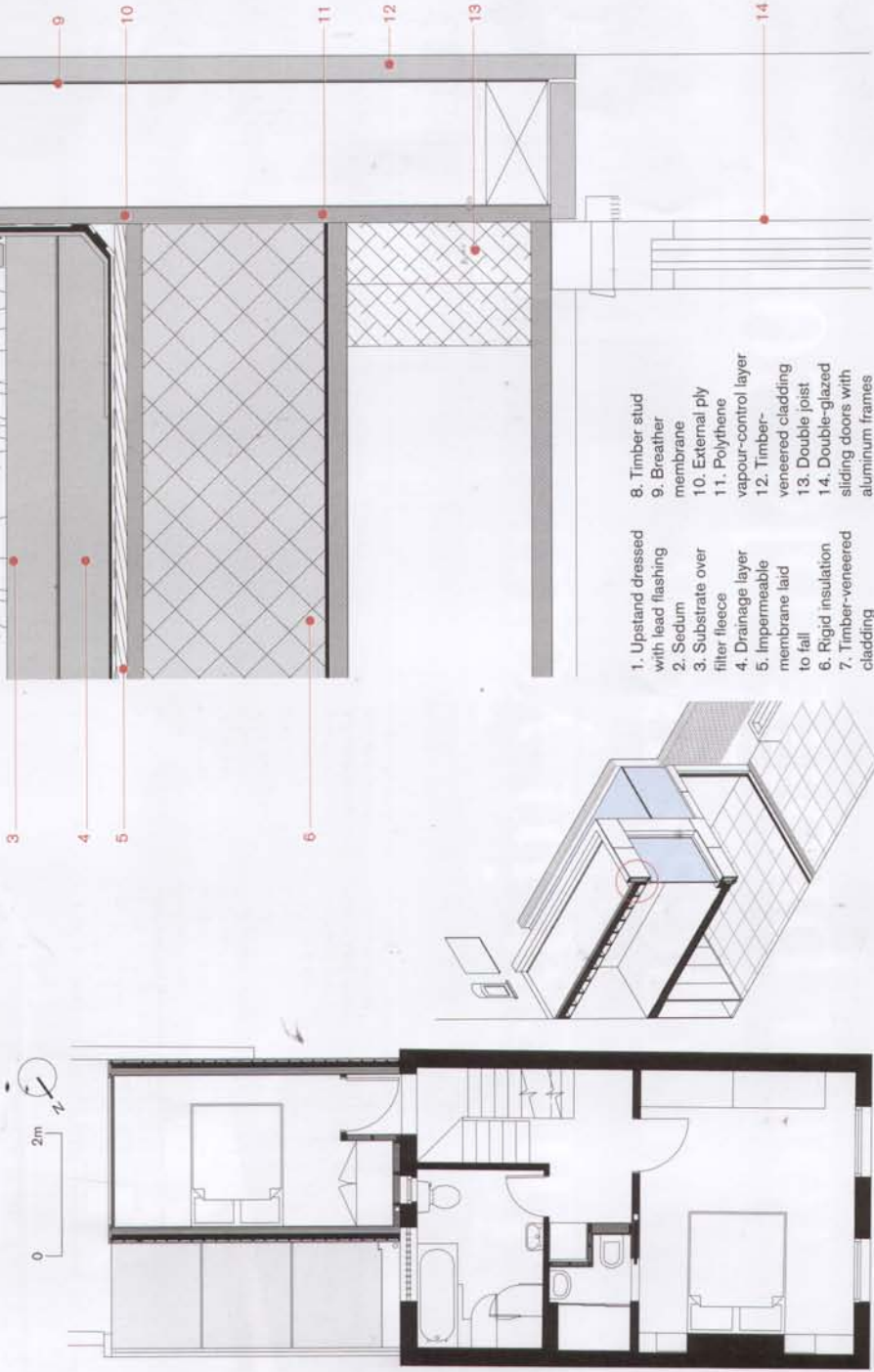


Below First-floor plan
 Below centre
 Axonometric of extension
 Right Roof section detail



1. Upstand dressed with lead flashing
2. Sedum
3. Substrate over filter fleece
4. Drainage layer
5. Impermeable membrane laid to fall
6. Rigid insulation
7. Timber-veneered cladding
8. Timber stud
9. Breather membrane
10. External ply
11. Polythene vapour-control layer
12. Timber-veneered cladding
13. Double joist
14. Double-glazed sliding doors with aluminum frames

KENTISH TOWN, LONDON
CRAWFORD PARTNERSHIP

Start on site date
 September 2007

Completion date
 July 2008

Structural engineer
 Malishev Wilson

Gross internal floor area
 32m²

Cost
 £150,000

The rear extension to this three-storey Victorian terraced house consists of an extra room on the first floor, which provides a roof for a new kitchen and dining area.

A timber and birch plywood stressed-skin construction technique usually used for industrial buildings was employed to create the new spaces. This makes the extension much lighter than a metal-framed design – and 10 per cent cheaper to build. The structure comprises of timber ribs, to which 15mm-thick

birch plywood was glued, forming a rigid box. The plywood serves as a flange in the I-beam, increasing stiffness.

Once set, the newly formed box-panel has a structural efficiency roughly equal to that of an equivalent aluminium structure in terms of its strength-to-weight ratio.

Spans of up to 6m can be achieved, even longer if the ribs are laminated. Gennady Vasilchenko-Malishev, partner, Malishev Wilson Engineers,

