

Revisions		
A	18.04.21	Amendment following design team review
B	26.04.21	Amendments to suit planning changes
C	06.05.21	Tender submission

NB/ All windows and doors to comply
approved document K, N and B (where
applicable

1

UPGRADE OF SOLID EXTERNAL WALL
To achieve min U-value 0.30W/m²K
Existing wall to be exposed and checked for its suitability.
Insulate existing wall on the inside using 50mm Celotex
GA4000 insulation board fixed to 25 x 50mm battens at
600mm centres to provide a nominal 25mm cavity between
the masonry and insulation.
Fix a vapour control layer on the warm side of the insulation.
Finish 12.5 plasterboard with a plaster skim. All work in
accordance with BS 8212: (Code of practice for dry lining).

2

WARM PITCHED ROOF
To achieve min U-value required of 0.15 W/m²K
Timber roof structures to be designed by an Engineer in
accordance with NHBC Technical Requirement R5 Structural
Design. Calculations to be based on BS EN 1995-1-1.
Roofing tiles to match existing fixed to tile battens secured
over breathable sarking felt to relevant BBA Certificate
allowing the breather felt to sag at least 10mm over
preservative-treated counter battens (min 38mm x 50mm).
Provide 130mm Celotex XR4000 insulation boards installed
under the counter battens and over 47 x 195mm timber
rafters strength class C24 at 400 c/c –span to engineer's
details. A vapour control layer should be provided to the
underside of the rafters. Finish with 12.5 plasterboard and
skim.
Restraint strapping - Ceiling joists tied to rafters (if raised
collar roof consult structural engineer). 100mm x 50mm
wall plate strapped down to walls. Ceiling joists and rafters
to be strapped to walls and gable walls, straps built into
cavity, across at least 3 timbers with noggins. All straps to be
1000 x 30 x 5mm galvanized straps or other approved to
BSEN 845-1 at 2m centres.

3

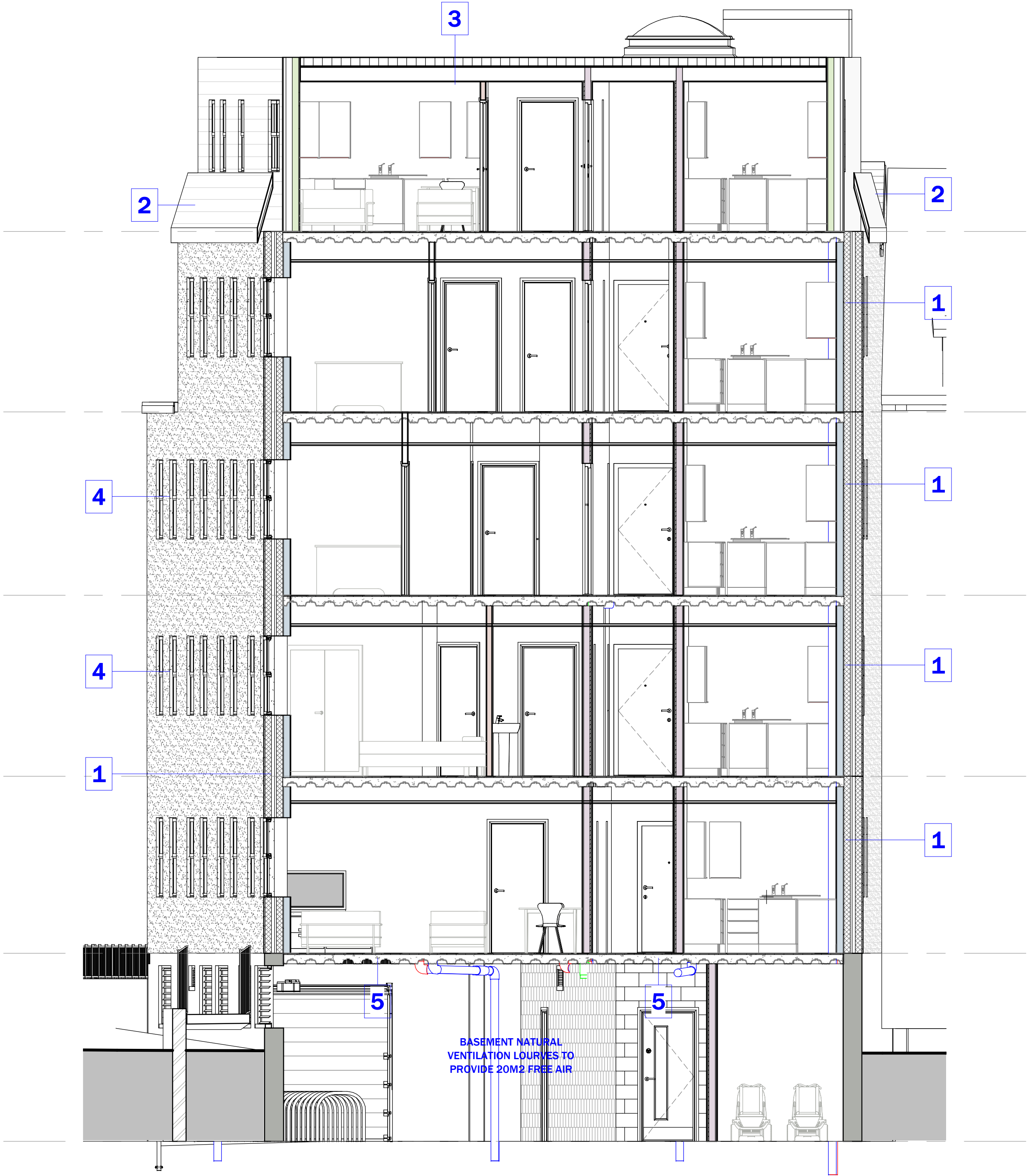
WARM FLAT ROOF
(imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
To achieve U value 0.15 W/m²K
Flat roof to be single ply membrane roofing providing aa fire
rating for surface spread of flame with a current BBA or
WIMLAS Certificate and laid to specialist specification. Single
ply membrane to be fixed to 22mm exterior quality plywood
over 140mm Celotex XR4000 insulation.
Insulation bonded to vcl on 22mm external quality plywood
decking or similar approved on sw firings to minimum 1 in 80
fall on sw treated 47 x 220mm C24 flat roof joists at 400mm
ctrs to give a max span of 5.08m or as Structural Engineer's
details and calculations. Underside of joists to have 12.5mm
foil backed plasterboard and skim. Provide cavity tray to
existing house where new roof abuts existing house.
Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms
galvanised lateral restraint straps at maximum 2000mm
centres fixed to 100 x 50mm wall plates and anchored to
wall.

4

NEW WINDOWS
New windows to be double glazed with 16mm argon gap and
soft coat low-E glass. Window Energy Rating to be Band C or
better and to achieve U-value of 1.6 W/m²K.
Where new windows are to be provided; if the area of
openings is more than 25 per cent of the total floor area
either the area of opening should be reduced to be not
greater than 25 per cent or some compensation feature
should be provided as described in paragraph 4.15 Approved
Document L1b and as agreed with Building Control.

5

EXPOSED FLOOR OVER BASEMENT
To meet min U value required of 0.25 W/m²K
Floor to be insulated under slab with min 75mm thick
Celotex GA4000, 25mm Celotex insulation to continue
around floor perimeters to avoid thermal bridging.
A VCL should be laid over the insulation boards and turned
down 100mm. all joints to be lapped 150mm and sealed.
Finish with 15mm cement particle board to provide min 1
hour fire rating to all steelwork - To Be Confirmed.



All documents and drawings
to be read in conjunction
with the Clients specification
and any discrepancies to be
clarified prior to works
commencing.

Notes

Do not scale from this drawing. Use figured dimensions only,
which are displayed in millimeters unless stated otherwise.
The contractor is requested to check all dimensions before work
is put in hand. Any discrepancies within the drawing should be
reported prior to commencement of works.

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Project	18 ORCHARD STREET, NEATH
Project number	N216
Client	ORCHARD STREETR (NEATH) LTD
Title	SECTION B-B
Drawing number	A151
Scale	1 : 50 at A1
Revision	C
Status	TENDER STAGE
Drawn	PC
Date	06.05.21

01 **SECTION B-B**
1 : 50