

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

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.

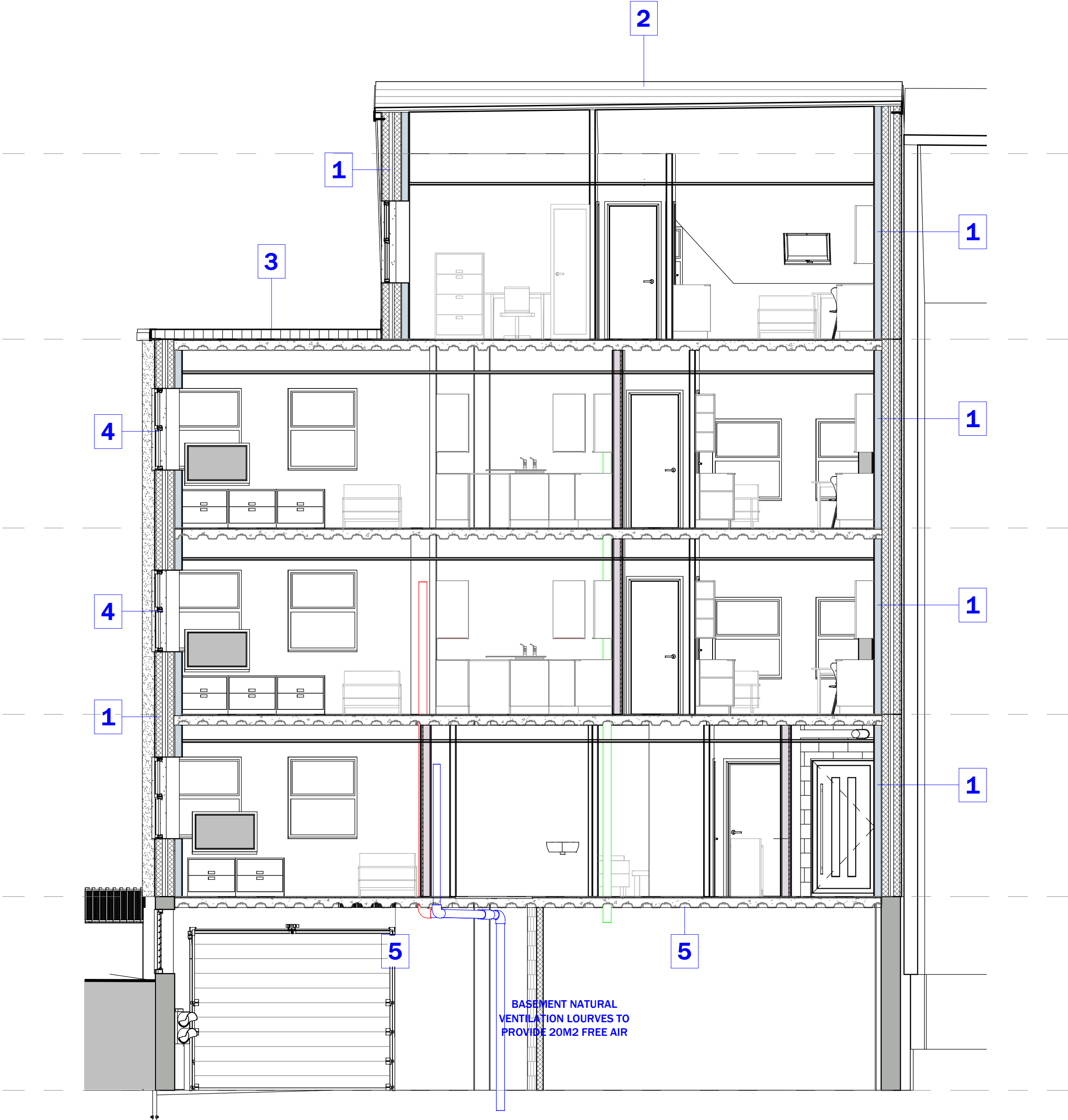
4

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.

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



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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01 **SECTION D-D**
1 : 50

Project	18 ORCHARD STREET, NEATH
Project number	N216
Client	ORCHARD STREETR (NEATH) LTD
Title	SECTION D-D
Drawing number	A153
Scale	1 : 50 at A1
Revision	C
Status	TENDER STAGE
Drawn	PC
Date	06.05.21