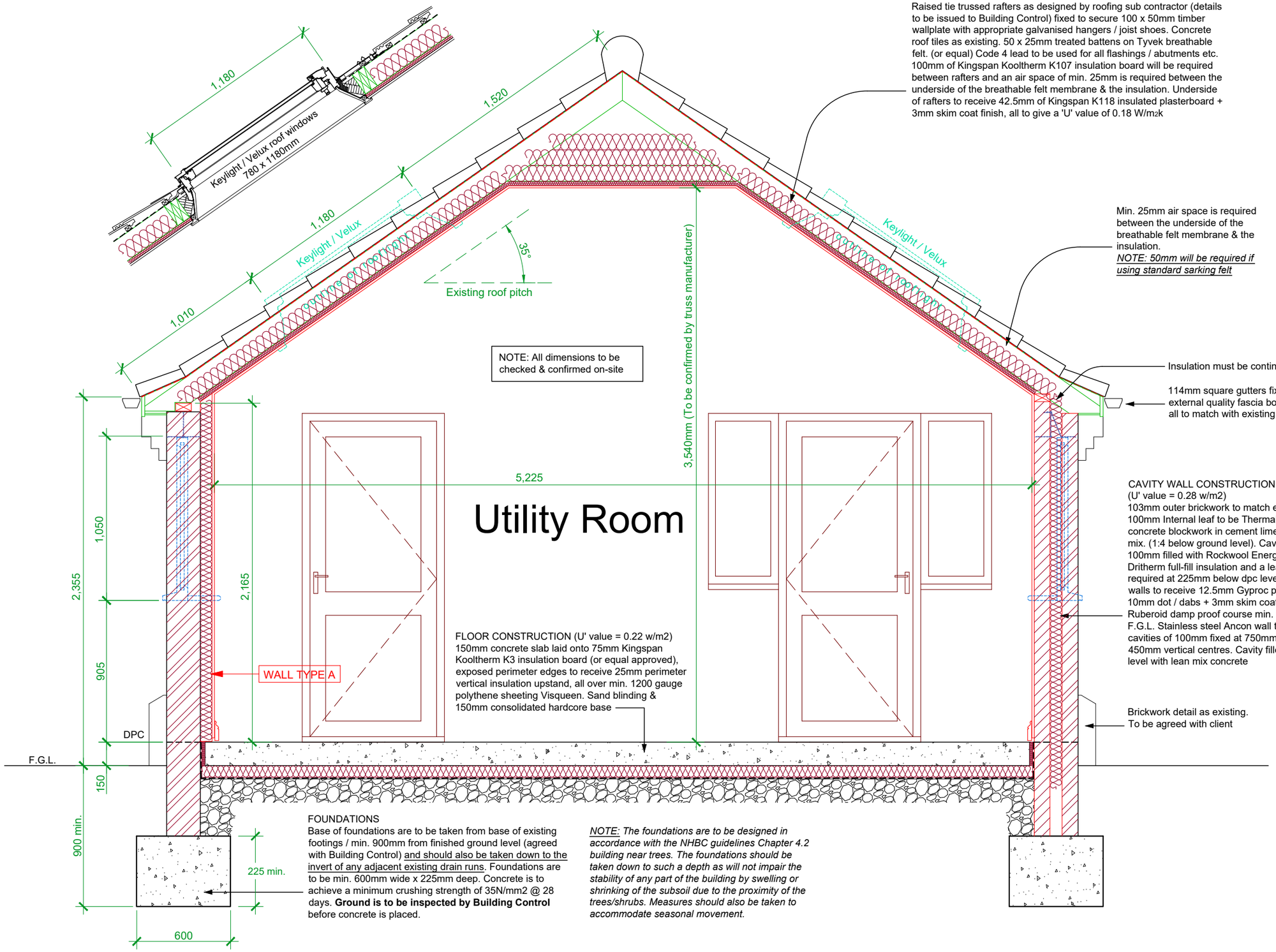


PITCHED ROOF CONSTRUCTION
Raised tie trussed rafters as designed by roofing sub contractor (details to be issued to Building Control) fixed to secure 100 x 50mm timber wallplate with appropriate galvanised hangers / joist shoes. Concrete roof tiles as existing. 50 x 25mm treated battens on Tyvek breathable felt. (or equal) Code 4 lead to be used for all flashings / abutments etc. 100mm of Kingspan Kooltherm K107 insulation board will be required between rafters and an air space of min. 25mm is required between the underside of the breathable felt membrane & the insulation. Underside of rafters to receive 42.5mm of Kingspan K118 insulated plasterboard + 3mm skim coat finish, all to give a 'U' value of 0.18 W/m2k

Min. 25mm air space is required between the underside of the breathable felt membrane & the insulation.
NOTE: 50mm will be required if using standard sarking felt

Insulation must be continuous

114mm square gutters fixed to external quality fascia boards all to match with existing

CAVITY WALL CONSTRUCTION
(U' value = 0.28 w/m2)
103mm outer brickwork to match existing.
100mm Internal leaf to be Thermalite or Celcon concrete blockwork in cement lime mortar 1:1:6 mix. (1:4 below ground level). Cavity width to be 100mm filled with Rockwool Energy Saver / Dritherm full-fill insulation and a lean mix fill is required at 225mm below dpc level. Internal walls to receive 12.5mm Gyproc plasterboard on 10mm dot / dabs + 3mm skim coat finish.
Ruberoid damp proof course min. 150mm above F.G.L. Stainless steel Ancon wall ties suitable for cavities of 100mm fixed at 750mm horizontal & 450mm vertical centres. Cavity filled to ground level with lean mix concrete

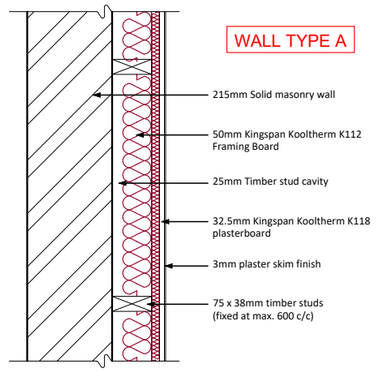
Brickwork detail as existing.
To be agreed with client

FLOOR CONSTRUCTION (U' value = 0.22 w/m2)
150mm concrete slab laid onto 75mm Kingspan Kooltherm K3 insulation board (or equal approved), exposed perimeter edges to receive 25mm perimeter vertical insulation upstand, all over min. 1200 gauge polythene sheeting Visqueen. Sand blinding & 150mm consolidated hardcore base

FOUNDATIONS
Base of foundations are to be taken from base of existing footings / min. 900mm from finished ground level (agreed with Building Control) and should also be taken down to the invert of any adjacent existing drain runs. Foundations are to be min. 600mm wide x 225mm deep. Concrete is to achieve a minimum crushing strength of 35N/mm2 @ 28 days. **Ground is to be inspected by Building Control** before concrete is placed.

NOTE: The foundations are to be designed in accordance with the NHBC guidelines Chapter 4.2 building near trees. The foundations should be taken down to such a depth as will not impair the stability of any part of the building by swelling or shrinking of the subsoil due to the proximity of the trees/shrubs. Measures should also be taken to accommodate seasonal movement.

Existing Solid Wall Thermal Upgrade Application
U-Value = 0.25 W/m²K



NOTE: CONTRACTOR TO REFER TO DRAWING NO. MA / 171120 (00) 07 FOR FULLY DETAILED BUILDING SPECIFICATION

0m 0.5m 1.0m 2.0m 2.5m
Scale 1:25 @ A3 December 2020

9 Danesbrook Court, Ingleby Barwick
Stockton-on-Tees. TS17 0QX
PROPOSED
Cross Section

Drg. No. MA / 171120 (00) 06

MERLIN architectural design est. 1998
01642 750 721 - 07906 146267
merlinarchitecture@live.co.uk
www.merlinarchitecture.co.uk

partner LABC

Cross Section
Scale 1:25