



PARTIAL FILL CAVITY WALL

To achieve minimum U Value of 0.18 W/m²K
20mm two coat sand/cement render to comply to BS EN 13914-1 with waterproof additive on 100mm lightweight block, 0.15 W/m²K, e.g. Celcon Solar, Thermalite Turbo. Ensure a 50mm clear residual cavity and provide 80mm Ecotherm Eco Cavity fixed to inner leaf constructed using 100mm block, 0.15 W/m²K, e.g. Celcon Solar, Thermalite Turbo. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.6 cement mortar.

WALLS BELOW GROUND

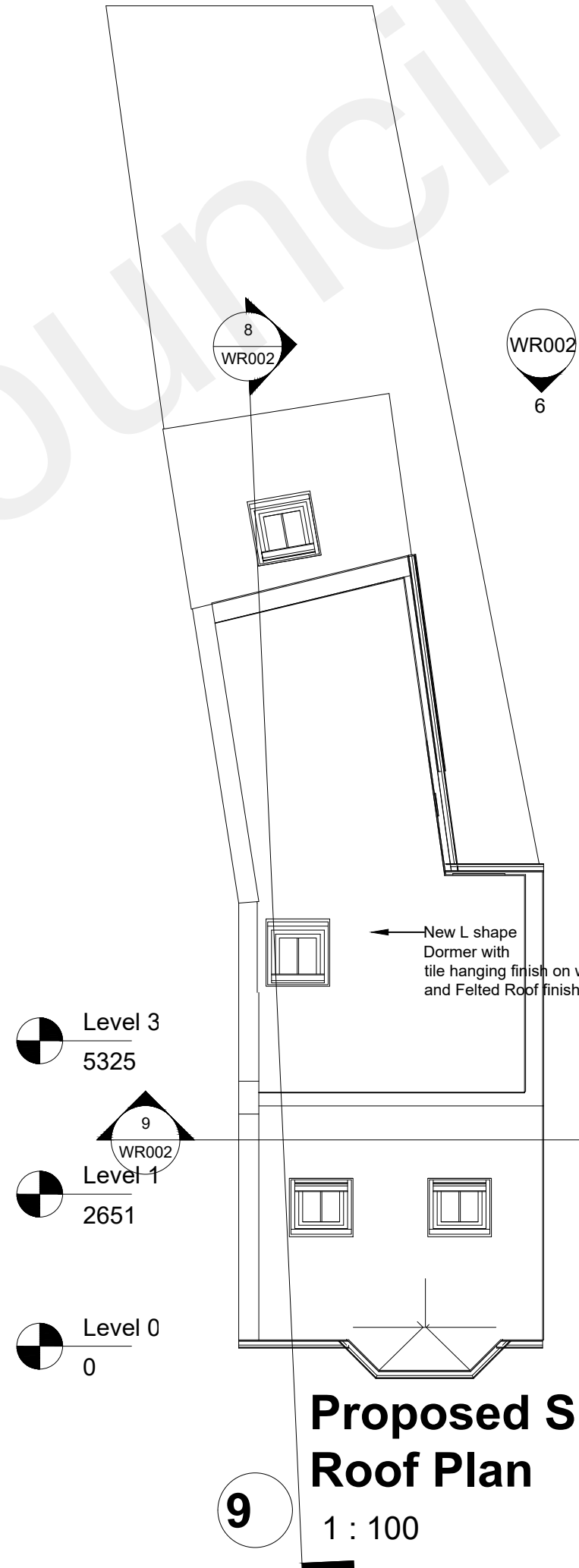
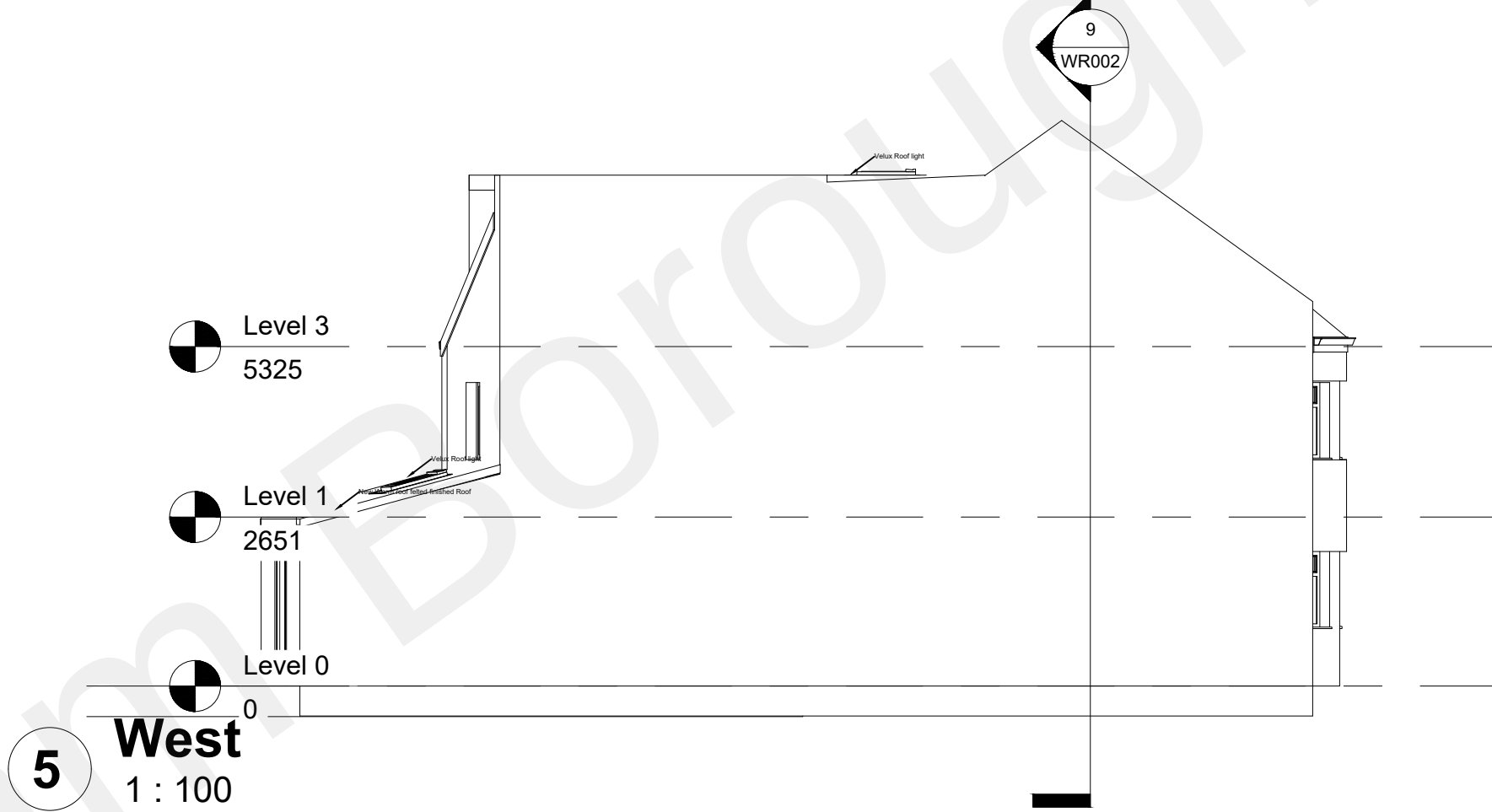
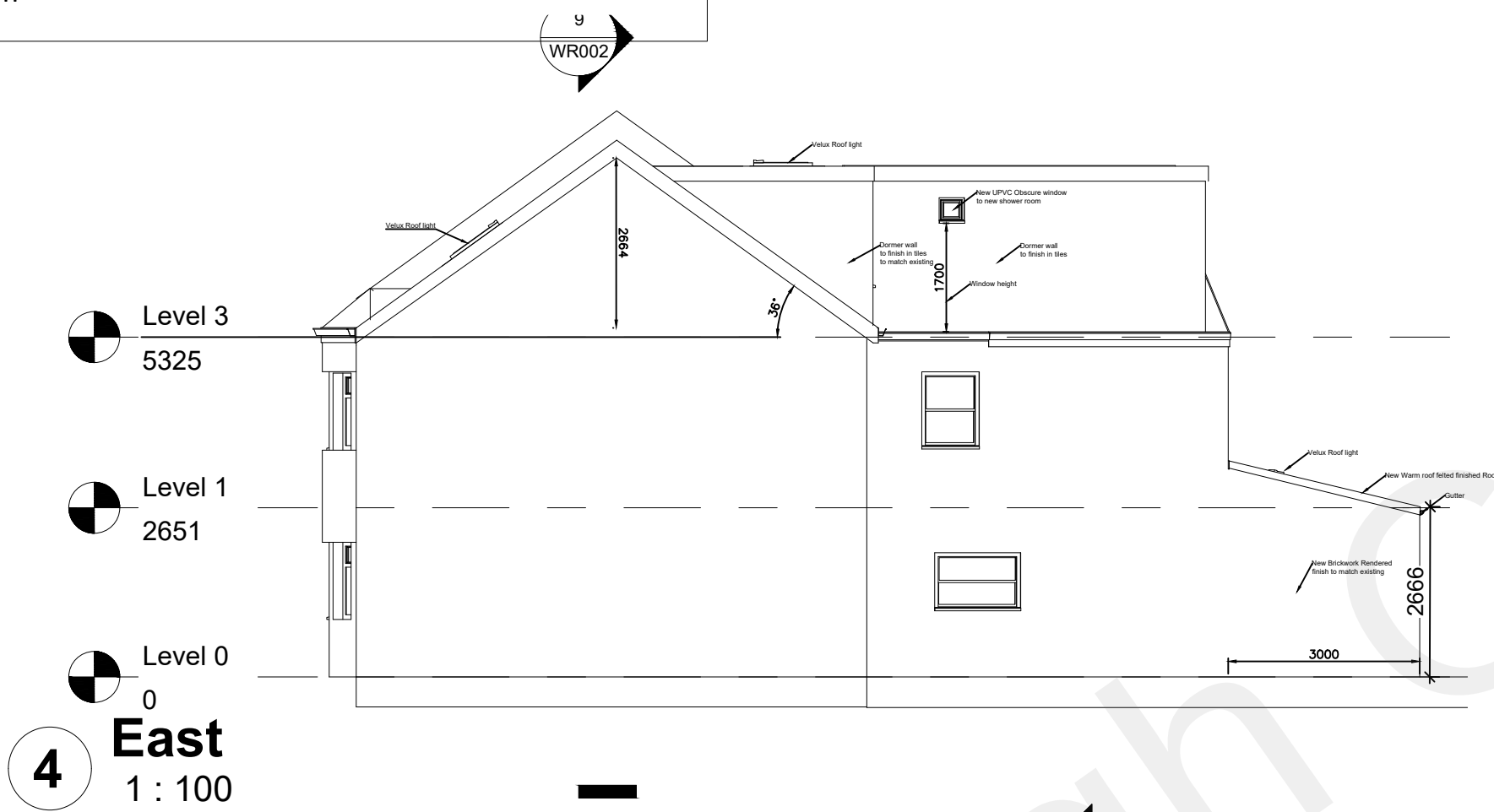
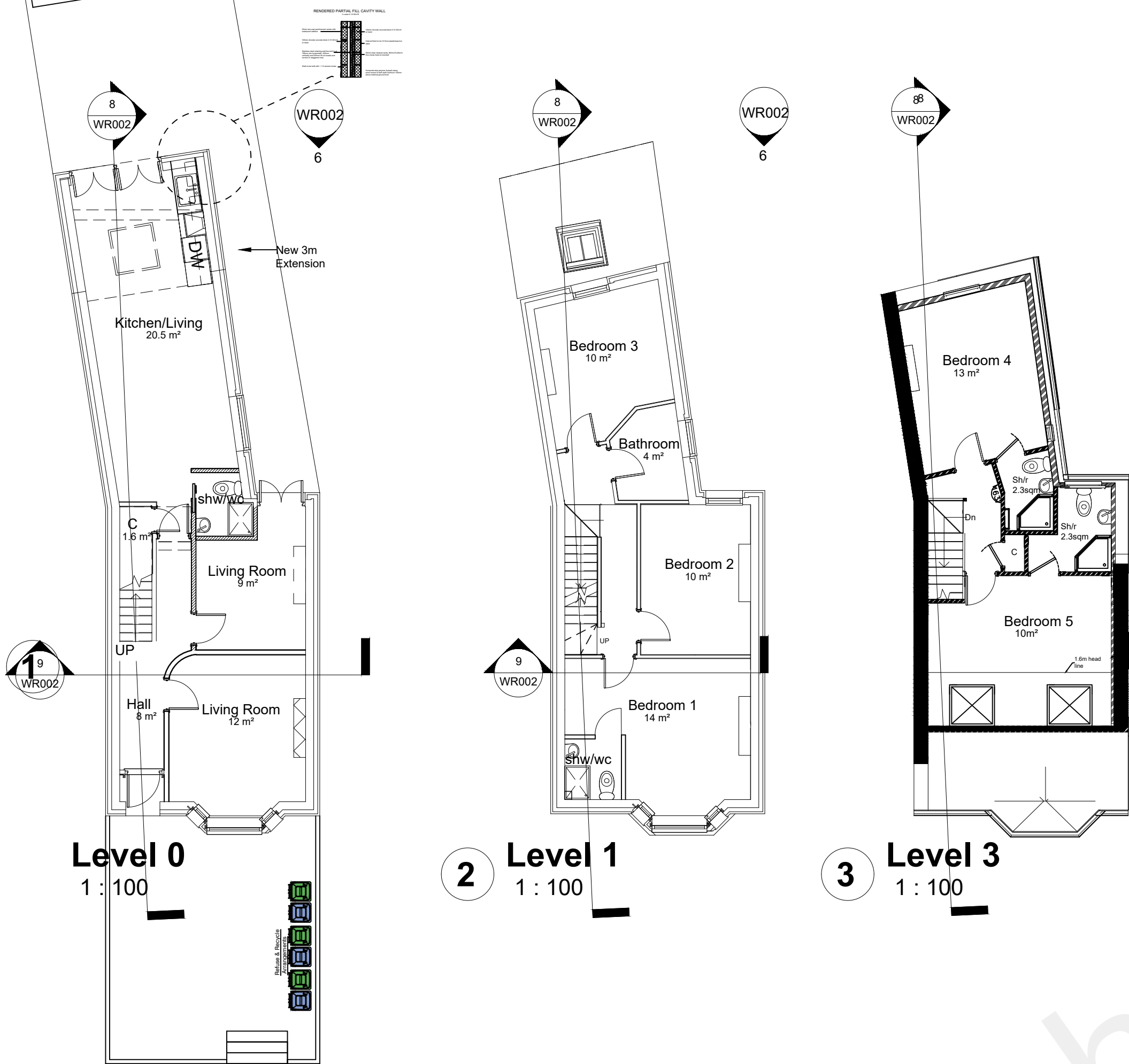
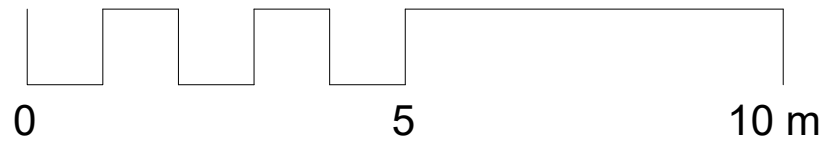
All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-1. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

The **Single Storey extension** will have the following dimensions:

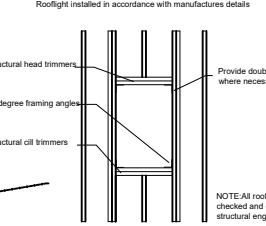
- Depth (max) - 3m
- Depth (min) - 2.7m internal depth
- Height (min) - 2.6m

The **dormer extension** will have the following dimensions:

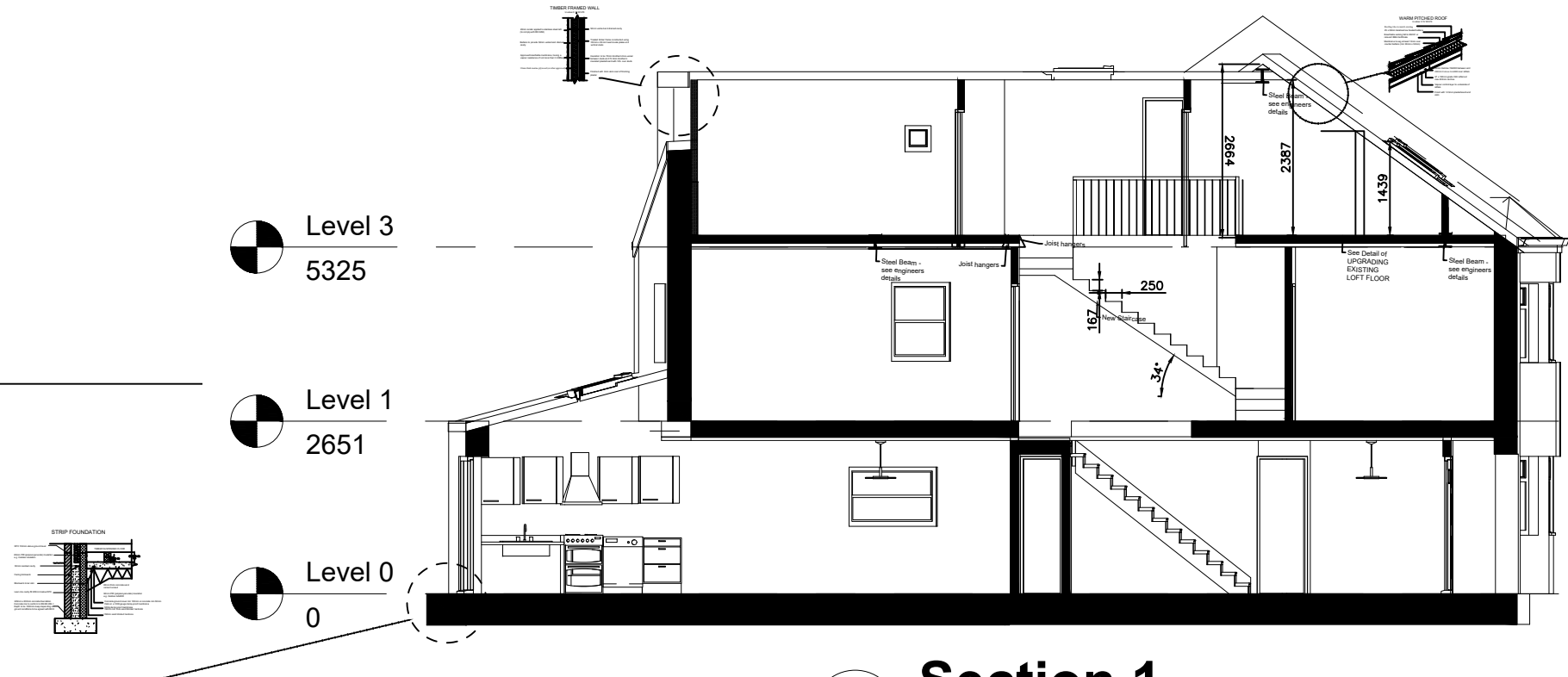
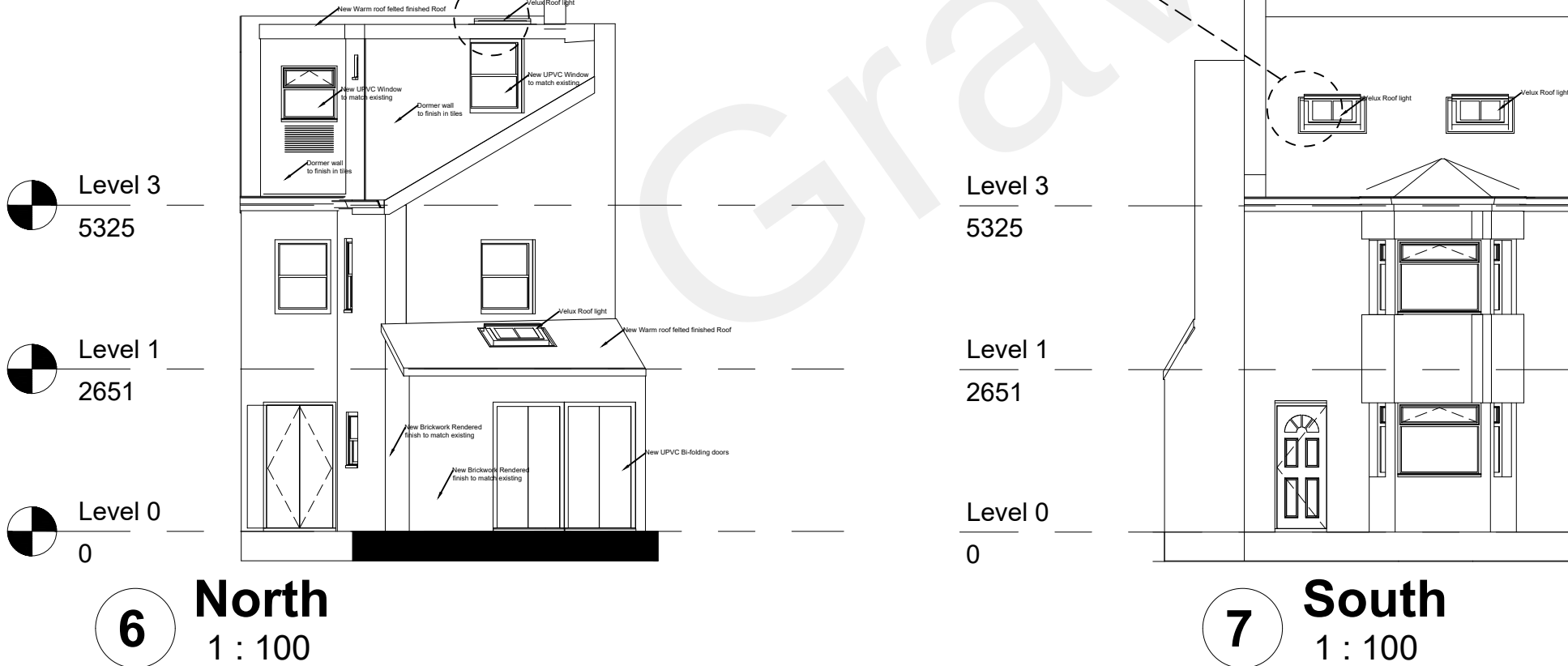
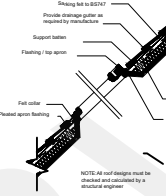
- Depth (max) - 6.15m
- Depth (min) - 3.8m
- Width - 8.7m
- Height - 2.54m



ROOFLIGHTS (STRUCTURE)



ROOFLIGHTS (SECTION)



DORMER CONSTRUCTION

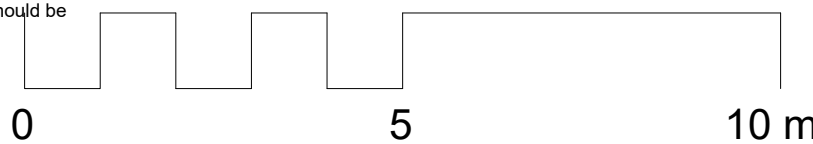
To achieve minimum U Value of 0.18 W/m²K
Structure to engineer's details and calculations. Render finish (to comply with BS EN 13914-1) applied in 3 coats at least 20mm thick to stainless steel render lath. Render should be finished onto an approved render stop. Render lath fixed to vertical 25 x 50mm preservative treated battens to provide vented and drained cavity fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P. external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using 100mm x 50mm head and sole plates and vertical studs (with noggin) at 400mm centres or to structural engineer's details and calculations. Insulation between and over studs 70mm Ecotherm Eco-Versal between plus VCL and 72.5mm Ecotherm Eco-Liner insulated plasterboard over. Finish with 3mm skim coat of finishing plaster.
All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanneal mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.

DORMER WARM PITCHED ROOF

Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
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 R6 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing fixed to tie 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 100mm Celotex GA4000 insulation boards under the counter battens and 40mm Celotex TB4000 between 47 x 100mm timber rafters strength class C24 at 400 c/c - to give a max 2.12m span. A vapour control layer should be provided to the underside of the rafters. Finish with 12.5mm plasterboard and skim.
Restrained 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 noggin. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BS EN 845-1 at 2m centres.
THIS IS A GENERAL GUIDE BASED ON NORMAL LOADING CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ENGINEER'S DETAIL CALCULATIONS ARE REQUIRED. PLEASE REFER TO THE TRADE DOCUMENT - 'SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILINGS AND ROOFS FOR DWELLINGS' OR ASK YOUR BUILDING CONTROL OFFICER FOR ADVICE.

STRIP FOUNDATION

Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004:2015 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.



Rev	Description	Date

CODE	SUITABILITY DESCRIPTION
STATUS	PURPOSE OF ISSUE



<https://www.ngbarchdesigners.co.uk/>

PROJECT
50 wrotham road gravesend , kent, da11 0qf

TITLE
Proposed Plans, Elevations and Sections

CLIENT
Kenneth & Karren Doku

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SCALE (@ A1) 1 : 100	PROJECT NUMBER Project Number	
DRAWING NUMBER WR002		REV C