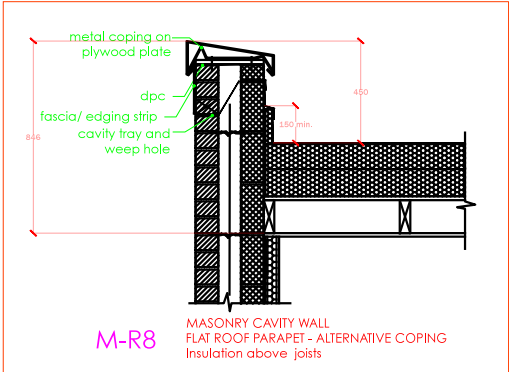
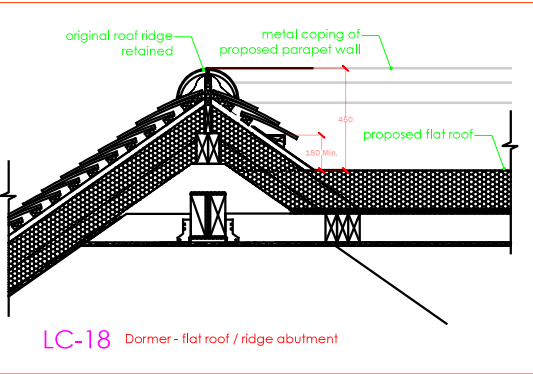
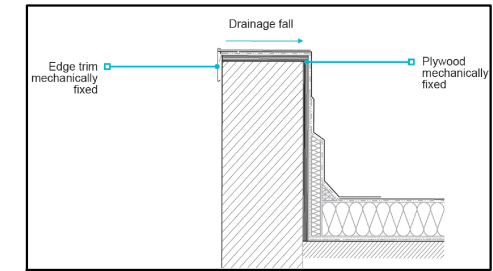




Proposed parapet wall build up dimensions - Compliant with Building Regs Class A and NHBC.



Proposed flat roof to original dwelling ridge abutment detail.



NHBC section 7.1.17 - standard parapet detailing
We have used this as our reference to ensure good practice is adhered too in our designs.

Diagram 4 Parapet walls: height

See para 3.01.1

Wall type	Thickness (mm)	Parapet height H _p to be not more than (mm)
Type A cavity wall	t ₁ + t ₂ equal or less than 200	600
	t ₁ + t ₂ greater than 200 equal or less than 250	860

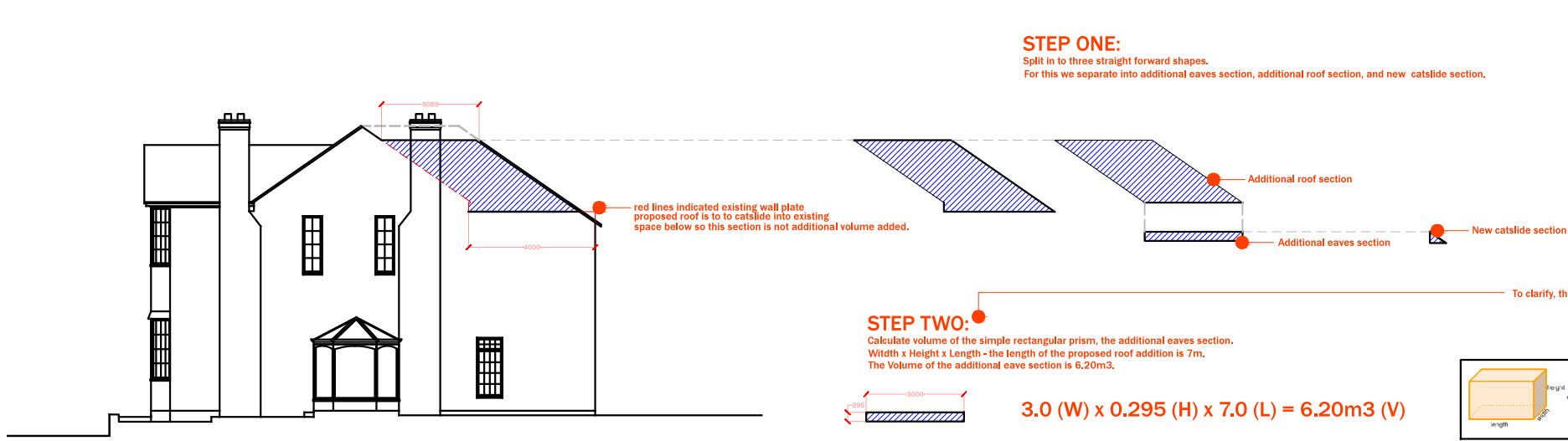
Class A Building Regulations shows that Parapet wall heights are measured from underside of roof structure, structure and not from finish roof level. It states that a parapet wall, on a cavity wall with a thickness greater than 200mm, then the height of the parapet wall should not be more than 860mm.

NOTES:

Volume overview:

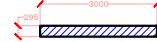
- (d) the cubic content of the resulting roof space would exceed the cubic content of the original roof space by more than:
- (i) 40 cubic metres in the case of a terrace house, or
- (ii) 50 cubic metres in any other case
- (iii) For the purposes of Class B "resulting roof space" means the roof space as enlarged, taking into account any enlargement to the original roof space, whether permitted by this Class or not

The proposed 'resulting roof space' doesn't exceed the allowed 50m³, as it is a total enlargement of 48.06m³.
the existing rear extension roof is proposed to be removed, therefore there are no existing roofs to be factored in to the equation.



STEP ONE:
Split in to three straight forward shapes.
For this we separate into additional eaves section, additional roof section, and new catslide section.

STEP TWO:
Calculate volume of the simple rectangular prism, the additional eaves section.
Width x Height x Length - the length of the proposed roof addition is 7m.
The Volume of the additional eave section is 6.20m³.

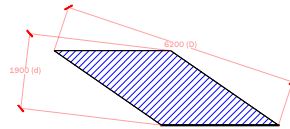


$$3.0 \text{ (W)} \times 0.295 \text{ (H)} \times 7.0 \text{ (L)} = 6.20\text{m}^3 \text{ (V)}$$

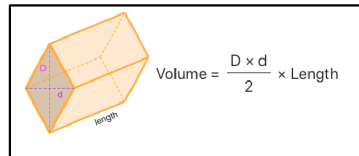


To clarify, this is how we have calculated the additional section for the eaves.

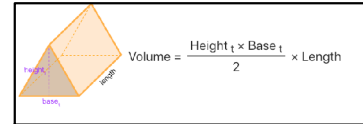
STEP THREE:
Calculate volume of the rhombic prism, the additional roof section.
((Dxd) / 2) x L = Volume - the length of the proposed roof addition is 7m.
The Volume of the additional roof section is 41.23m³.



$$\frac{6200 \text{ (D)} \times 1900 \text{ (d)}}{2} \times 7.0 \text{ (L)} = 41.23\text{m}^3 \text{ (V)}$$



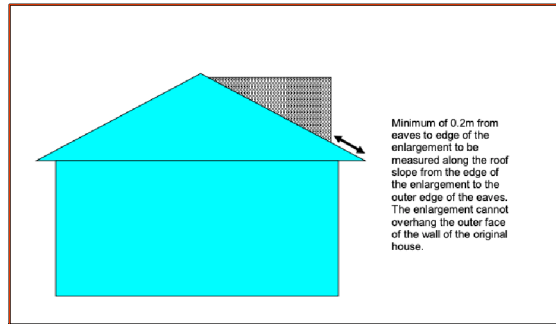
STEP FOUR:
Calculate volume of triangle prism.
Base of triangle (0.509m) x height (0.353m) divided by 2.
Area of base = (0.089m). Volume equals area x length (7m).
Volume of new ridge section is 0.628m³.



$$\frac{0.509 \times 0.353}{2} \times 7.0 \text{ (L)} = 0.628\text{m}^3 \text{ (V)}$$

STEP FIVE:
Add the total of the three sums together.
0.63 + 6.20 + 41.23 = 48.06
The total additional volume proposed is 48.06m³.

Total Additional Volume added over that of the original houses roof space = 48.06m³



- (bb) references a measurement of 0.2m from eaves, this is the dimension in reference.
- (i) states clearly that this doesn't apply to our proposal. Due to it being an enlargement over an existing rear extension.
- (ii) is in reference to enlargements which extend beyond the external face of the original dwellings wall. Section (ii) states that as our proposal is over a rear extension it is permitted to extend beyond the outside face of the rear external wall of the original dwelling house.

To clarify, this has been cited to show how our proposal is exempt from having to step the enlargement in from the eaves by 0.2m. As well as, being permitted despite it extending beyond the outer face of the original rear elevation, due to it being over a rear extension.

The referenced 0.2m mention in (bb) has no relevance to our application as our proposal is exempt from it.

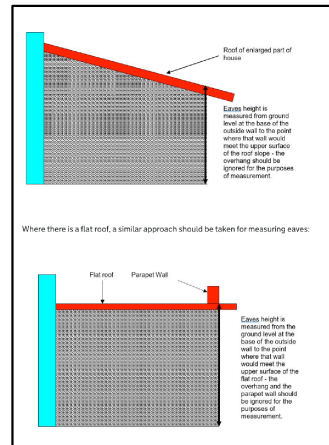
- (b) the enlargement shall be constructed so that:
- (i) other than in the case of a hip-to-gable enlargement or an enlargement which joins the original roof to the roof of a rear or side extension:
- (aa) the eaves of the original roof are maintained or reinstated; and
- (bb) the edge of the enlargement closest to the eaves of the original roof shall, so far as practicable, be not less than 0.2 metres from the eaves, measured along the roof slope from the outside edge of the eaves; and
- (ii) other than in the case of an enlargement which joins the original roof to the roof of a rear or side extension, no part of the enlargement extends beyond the outside face of any external wall of the original dwellinghouse

As the proposed involves an enlargement that joins the original roof to a rear extension:
The eaves of the original roof do not need to be maintained or reinstated, (yet we are)
The edge of the enlargement closest to the eaves does not need to be set back 0.2m from the eaves.
The enlargement can extend beyond the outside face of the rear external wall of the original dwelling house.

Chimneys, firewalls, parapet walls and other protrusions above the main roof ridge line should not be taken into account when considering the height of the highest part of the roof of the existing house.

The enlarged part of the roof must not extend beyond the outer face of any wall of the original house if it is to qualify as permitted development, unless it joins the original roof to the roof of a rear or side extension. An interpretative provision at paragraph B.4 of Class B clarifies that for these purposes any roof tiles, guttering, fascias, barge boards or other minor roof details which overhang the outer face of the wall should not to be considered part of the roof enlargement.

The top above statement excludes parapet walls from consideration where measurements are concerned.
The second above statement excludes guttering and minor roof details, that overhang the outer face of the wall.
The proposed parapets are both guttering items but also other minor roof details that overhang the outer face of the wall therefore they are not to be considered part of he roof enlargement, Hence why we haven't included them in our volume calculations.



The above statement explains that when an enlargement has a flat roof that overhangs and parapet walls should be ignored for the purposes of measurement.

SCALE: A3 @ 1:200

A3.42

DRAWN BY: Joe Robertshaw

Amended - Rev 004

place for humans

BLAKE HALL DRIVE.
MIRFIELD.

VOLUME DRAWINGS