

1 CALCULATION OF EXTERNAL VOLUME OF THE PROPOSED
HIP TO GABLE CONVERSION OF THE ROOF

base length of gable 9.73 m
height of gable 3.87 m
top width from hip to gable 4.75 m

EXTERNAL VOLUME OF GABLE

$$\frac{9.73 \times 3.87 \times 4.75}{6} = 29.81\text{m}^3 \quad - \text{barn hip volume } 1.07\text{m}^3 = 28.74\text{m}^3 \text{ TOTAL}$$

2 CALCULATION OF EXTERNAL VOLUME OF THE PROPOSED
REAR DORMER IN THE LOFT CONVERSION

Cross-sectional side area = 3.26m²

EXTERNAL VOLUME OF DORMER = 3.26 × 6.20 = 20.21m³
width
hip to gable volume 28.74m³

48.95m³ TOTAL < 50m³

