

Calculation for Hip to Gable Roof Volume

Volume of additional Dormer

Depth of main roof- (A)
Height of main roof- (B)
Ridge to Eaves in plan- (C)

9.4m
3.0m
4.3m

Depth of Dormer- (D)
Height of Dormer - (H)
Length of Dormer - (L)

4.0m
2.8m
5.2m

Formula: $V = \frac{1}{3} \text{Base area} \times \text{Height.}$

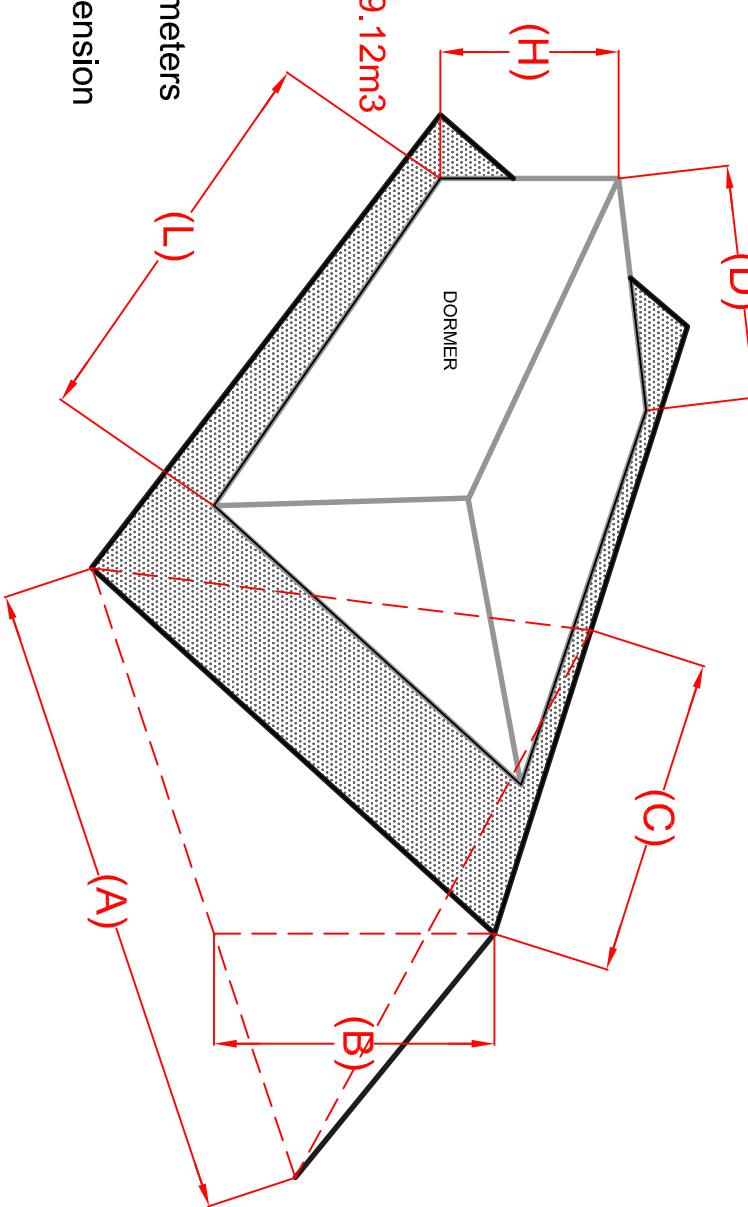
$$V = \frac{1}{3} (9.4 \times 4.3/2) \times 3.0$$

$$6.7 \times 3.0 = 20.21 \text{m}^3.$$

Total Volume added to the existing roof = **20.21m³**

$$\text{Total Volume} = 20.21 \text{m}^3 + 29.12 \text{m}^3 = \mathbf{49.33 \text{m}^3}$$

In the proposed development added volume to the existing roof is **49.33m³** cubic meters, which is within 50 cubic meters limit for a Permitted Development for a semi-detached property that has not been previously extended. Also any proposed part of the roof alteration is not higher than the highest part of the existing roof. The Dormer extension is set at least 200mm from eaves.



NOTES:
ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS.
ALL DIMENSIONS IN METRES TO BE CHECKED AND VERIFIED ON SITE BEFORE COMMENCEMENT OF WORK.
THIS DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT WORKING DRAWINGS, SPECIFICATIONS, DETAILS AND
STRUCTURE DRAWINGS.
ALL MATERIAL USED IN THE PROPOSED EXTENSION SHOULD MATCH THE EXISTING BUILDING.



LAWFUL DEVELOPMENT CERTIFICATE

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DRAWING TITLE:
PROPOSED ROOF PLAN & VOLUME
CALCULATIONS

SCALE:
1:100@A3

DRAWING NUMBER:
GA 2003

REV:
A

DATE:
01/07/2025