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Dimensions, areas and levels where given are to be checked on site by the user.
Figured dimensions only are to be taken from this drawing. Any discrepancies are to be reported to the architect before work commences.

This drawing is to be read in conjunction with other relevant drawings and documents.

Notes

Revisions



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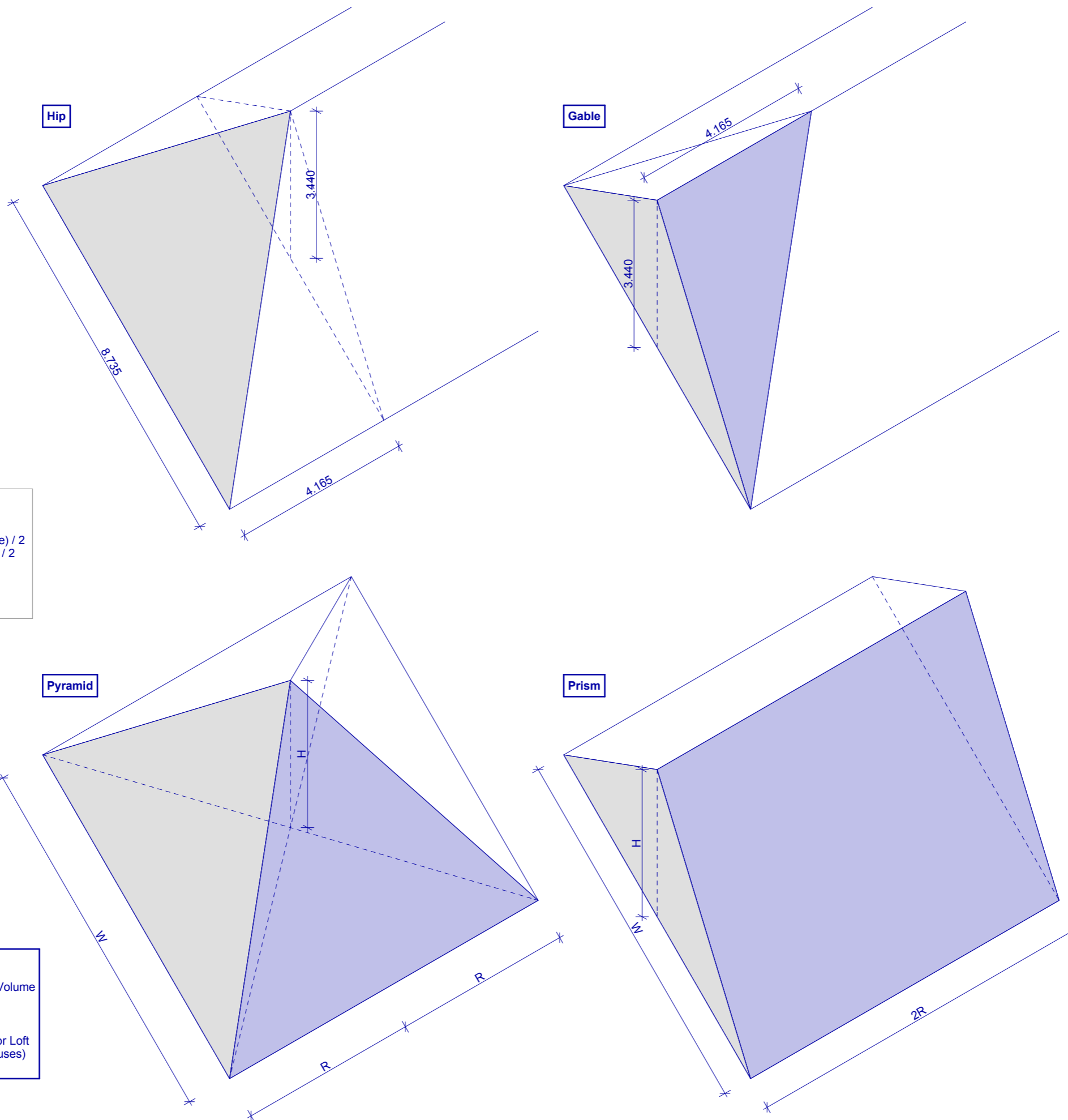
Col Application

Hip-to-Gable Conversion
& new rear Dormer

at
149 Chanctonbury Way
London, N12 7AE

Extensions Volume Calculations

drawing no: CWG.Col.11
scale @A3: 1:100
project no: 2109 date: 05/10/2021
drawn by / checked by: OG / OG



Pyramid Volume Calculation:
Base Area Pyramid = $W \times 2R$
= $8.735m \times 4.165m \times 2$
= $72.76m^2$
Volume Pyramid = $\text{Base Area} \times H / 3$
= $72.76m^2 \times 3.44m / 3$
= $83.43m^3$

Prism Volume Calculation:
Area of Gable = $W / 2 \times H$
= $8.735m / 2 \times 3.44m$
= $15.02m^2$
Volume Prism = $\text{Area of Gable} \times 2R$
= $15.02m^2 \times 4.165m \times 2$
= $125.12m^3$

Hip to Gable Volume Calculation:
Hip to Gable Extension Volume = $(\text{Prism Volume} - \text{Pyramid Volume}) / 2$
= $(125.12m^3 - 83.43m^3) / 2$
= $20.85m^3$

Dormer Volume Calculation:
Dormer Volume = $\text{Depth} \times \text{Height} / 2 \times \text{Width}$
= $3.16m \times 2.5m / 2 \times 5.88m$
= $23.23m^3$

Total Volume Increase (from Original):
Volume Increase = $\text{Hip to Gable Volume} + \text{Dormer Volume}$
= $20.85m^3 + 23.23m^3$
= $44.08m^3$
Conclusion: $44.08m^3 < 50m^3$ (PD allowance for Loft Extensions for Semi-detached Houses)
>> compliant