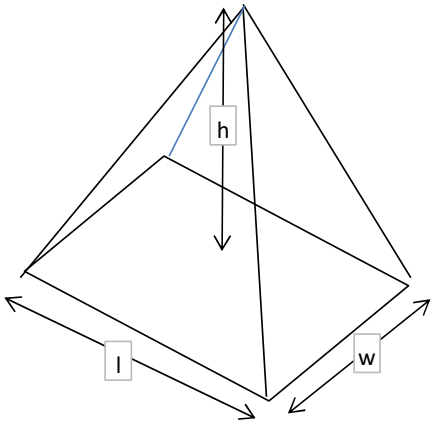
SKM Planning & Design	Project **32 Midcroft**			Project no **SKMPD/32MC**	
	Part of Structure Hip to gable volume calc			Page **1** of **1**	
	Drawing Ref	Prepared SKM	Date	Rev N/a	Date N/a

Subject

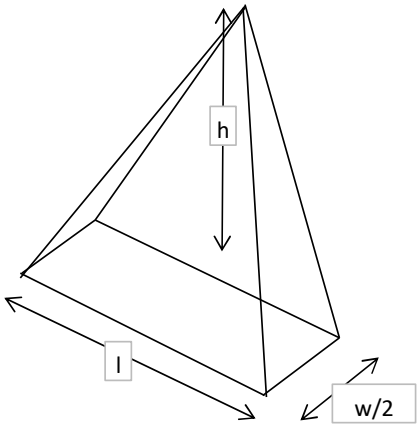
for a rectangular pyramid

Volume = (l * w * h) / 3



for half a rectangular pyramid

Volume = (l * (w/2) * h) / 3



Hip to gable volume = prism comprising gable side face, less half pyramid

Triangular Prism Volume Proposed (including existing pitch):

Gable external height	3	m
Gable base external length (overall house depth)	8.445	m
Prism length (distance from gable wall to original ridge)	4.6	m
Volume of triangular prism = 0.5*h*b*l	58.27	m3

Half Rectangular Pyramid Volume (volume of existing pitch):

w/2 i.e. distance from gable wall to original ridge	4.6	m
l (i.e 2 x gable base)	*8.445*	m
h (same as height of gable)	3	m
Volume	38.847	m3

Net additional volume required for hip to gable **19.4235** **m3**

Volume available for dormer (50m3 allowance) 30.58 m3