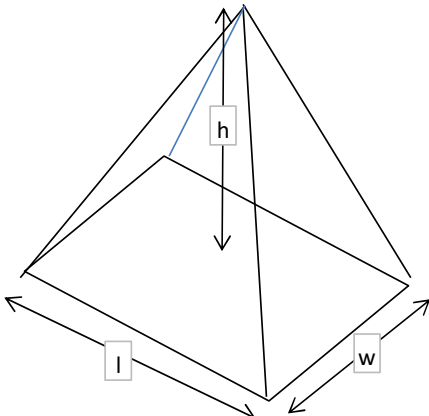
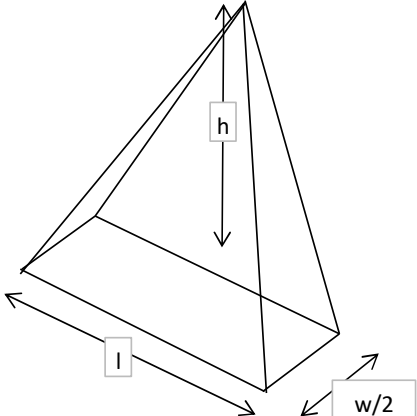


<div>SKM Planning & Design</div>	Project 42 Shenley Avenue			Project no SKMPD/42SA																																		
	Part of Structure Hip to gable volume calc			Page 1	of 1																																	
	Drawing Ref	Prepared SKM	Date	Rev N/a	Date N/a																																	
Subject	Volume Check																																					
<div>for a rectangular pyramid</div> <div>Volume = (l * w * h) / 3</div> <div></div> <div>for half a rectangular pyramid</div> <div>Volume = (l * (w/2) * h) / 3</div> <div></div> <div>Hip to gable volume = prism comprising gable side face, less half pyramid</div> <div><div>Triangular Prism Volume Proposed (including existing pitch):</div><table><tr><td>Gable external height</td><td>3</td><td>m</td></tr><tr><td>Gable base external length (overall house depth)</td><td>7.9</td><td>m</td></tr><tr><td>Prism length (distance from gable wall to original ridge)</td><td>3.88</td><td>m</td></tr><tr><td>Volume of triangular prism = 0.5*h*b*l</td><td>45.98</td><td>m3</td></tr></table><div>Half Rectangular Pyramid Volume (volume of existing pitch):</div><table><tr><td>w/2 i.e. distance from gable wall to original ridge</td><td>3.88</td><td>m</td></tr><tr><td>l (i.e 2 x gable base)</td><td>7.9</td><td>m</td></tr><tr><td>h (same as height of gable)</td><td>3</td><td>m</td></tr><tr><td>Volume</td><td>30.652</td><td>m3</td></tr></table><div>Net additional volume required for hip to gable</div><table><tr><td></td><td>15.326</td><td>m3</td></tr></table></div> <div><div>per gable</div><div>Volume available for dormer (50m3 allowance)</div><table><tr><td>34.67</td><td>m3</td></tr></table><div>Dormer area = height x dormer depth / 2</div><table><tr><td>5.53</td><td>m2</td></tr></table><div>Dormer width possible</div><table><tr><td>6.27</td><td>m</td></tr></table><div>6.27 exceeds 5.6m proposed</div></div>						Gable external height	3	m	Gable base external length (overall house depth)	7.9	m	Prism length (distance from gable wall to original ridge)	3.88	m	Volume of triangular prism = 0.5*h*b*l	45.98	m3	w/2 i.e. distance from gable wall to original ridge	3.88	m	l (i.e 2 x gable base)	7.9	m	h (same as height of gable)	3	m	Volume	30.652	m3		15.326	m3	34.67	m3	5.53	m2	6.27	m
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