

## 22/00440/FUH Mulroy House, Chorley

### External volume comparison calculations

#### Existing volumes:

GF/FF footprint	135.44m <sup>2</sup>	
Avg. ht to eaves	3.83m	
	$135.44 \times 3.83 =$	<u>519.41m<sup>3</sup></u>

Main roof	L 13.12m, W 8.32m ht 3.15m $13.12 \times 8.32 \times 3.15/2$	<u>171.92m<sup>3</sup></u>
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Front gable	L 6.27m (ridge) W 6.48m ht 2.81m $6.48 \times 6.27/2 \times 2.81/2$	<u>28.54m<sup>3</sup></u>
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Rear gable	L 5.62m (ridge) W 6.06m ht 2.81m $6.06 \times 5.62/2 \times 2.81/2$	<u>23.92m<sup>3</sup></u>
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**TOTAL EXISTING VOLUME:** **743.79m<sup>3</sup>**

#### Proposed volumes:

GF/FF footprint	147.62m <sup>2</sup>	
Avg. ht to eaves.	3.83m	
	$135.44 \times 3.83 =$	<u>566.12m<sup>3</sup></u>

Existing main roof	L 13.12m, W 8.32m ht 3.15m $13.12 \times 8.32 \times 3.15/2$	<u>85.96m<sup>3</sup></u>
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Proposed roof space Mansard roof ht. 0.90m	ceiling level area 67.03m <sup>2</sup> , flat roof area 56.19m <sup>2</sup> $67.03m^2 + 56.19m^2 / 2 \times 0.90$	<u>55.45m<sup>3</sup></u>
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FFL above original eaves ht. above original eaves	67.03m <sup>2</sup> 1.32m $67.03m^2 \times 1.32m$	<u>88.47m<sup>3</sup></u>
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Front gable	L 6.27m (ridge) W 6.48m ht 2.81m $6.48 \times 6.27/2 \times 2.81/2$	<u>28.54m<sup>3</sup></u>
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**TOTAL EXISTING VOLUME:** **824.54m<sup>3</sup>**

**GROSS INCREASE IN EXTERNAL VOLUME:** **80.75m<sup>3</sup>**

Note, the above figures do not include the existing conservatory or dormer windows nor the proposed conservatory.