3m diameter bamboo octa helical dome – design & prototype

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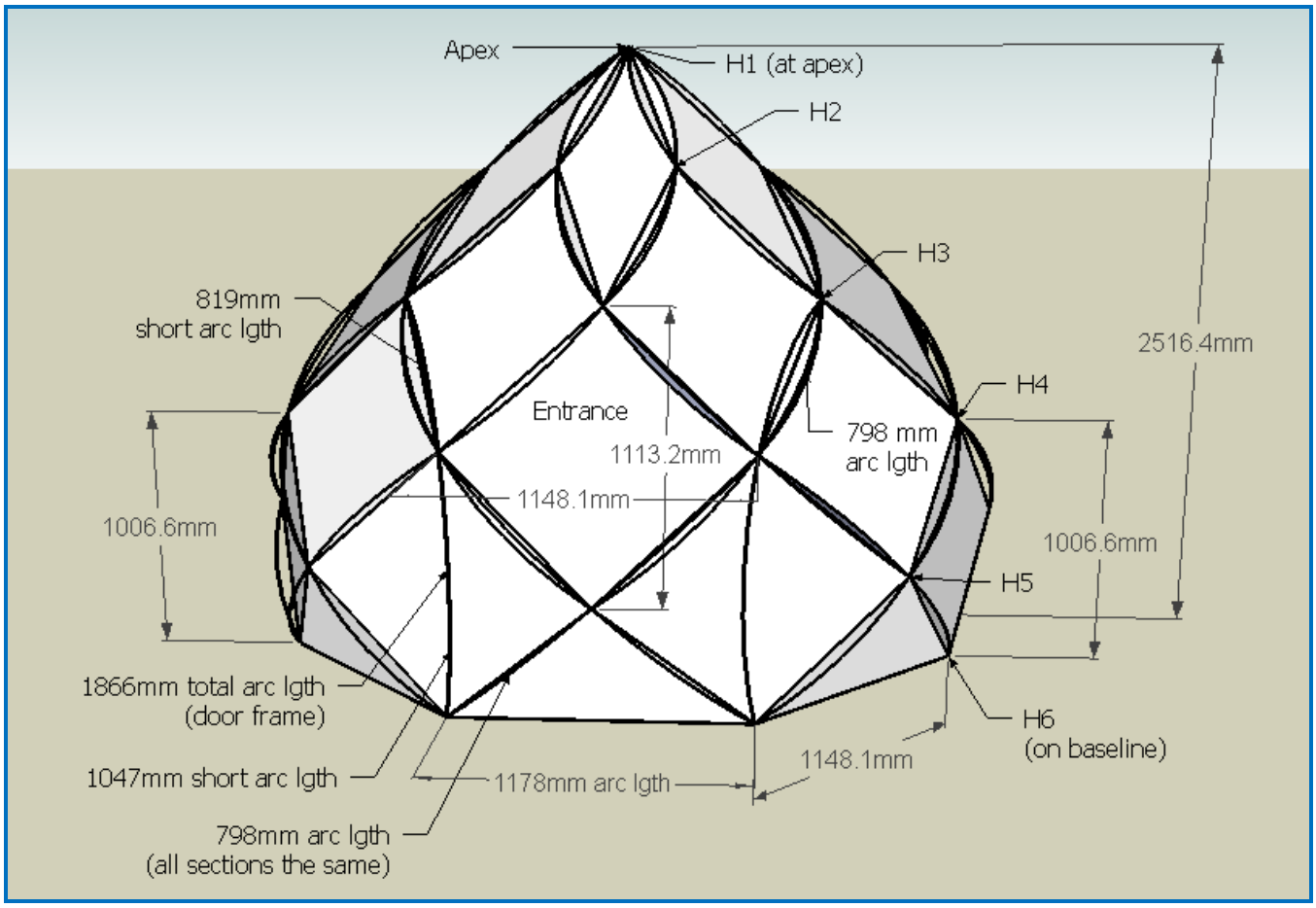
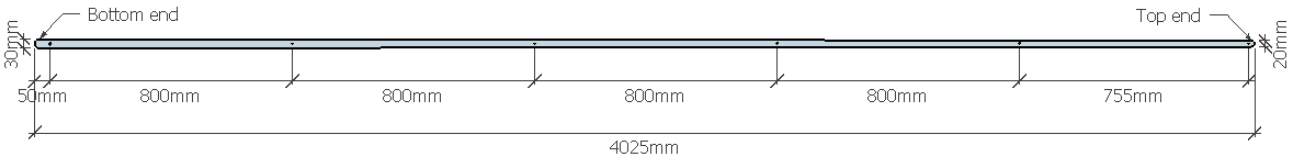


Element	Drawing lgth (mm)	Construction lgth (mm)
Height	2516.4	2600
Base line section – straight line lgth	1148.1	1150
Base line section – arc lgth	1178	1180
Arc length of each section of diagonal	798	800
Height from base to H4	1006.6	1000
H4 horizontal spacing – straight line	1148.1	1150
H5 to H3	1113.2	1110
Entrance door frame H6 to H3 arc	1866	1866
Entrance door frame H4 to H3 arc lgth	819	819
Entrance door frame H6 to H4 arc lgth	1047	1047

Bamboo component dimensions

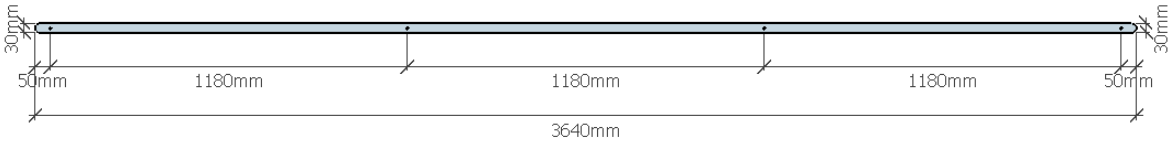
Diagonal framing piece – make 16

Note: All holes are 4mm Ø, except the bottom one, which is 7mm Ø to take a 6mm Ø bolt.



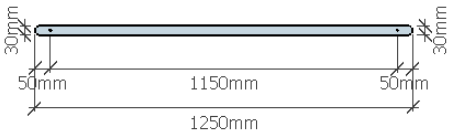
Baseline curved piece – make 2

Note: All holes are7mm Ø to take a 6mm Ø bolt.



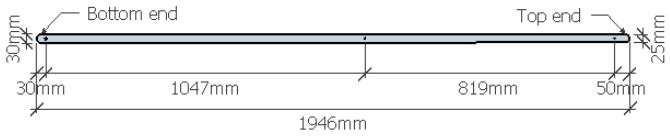
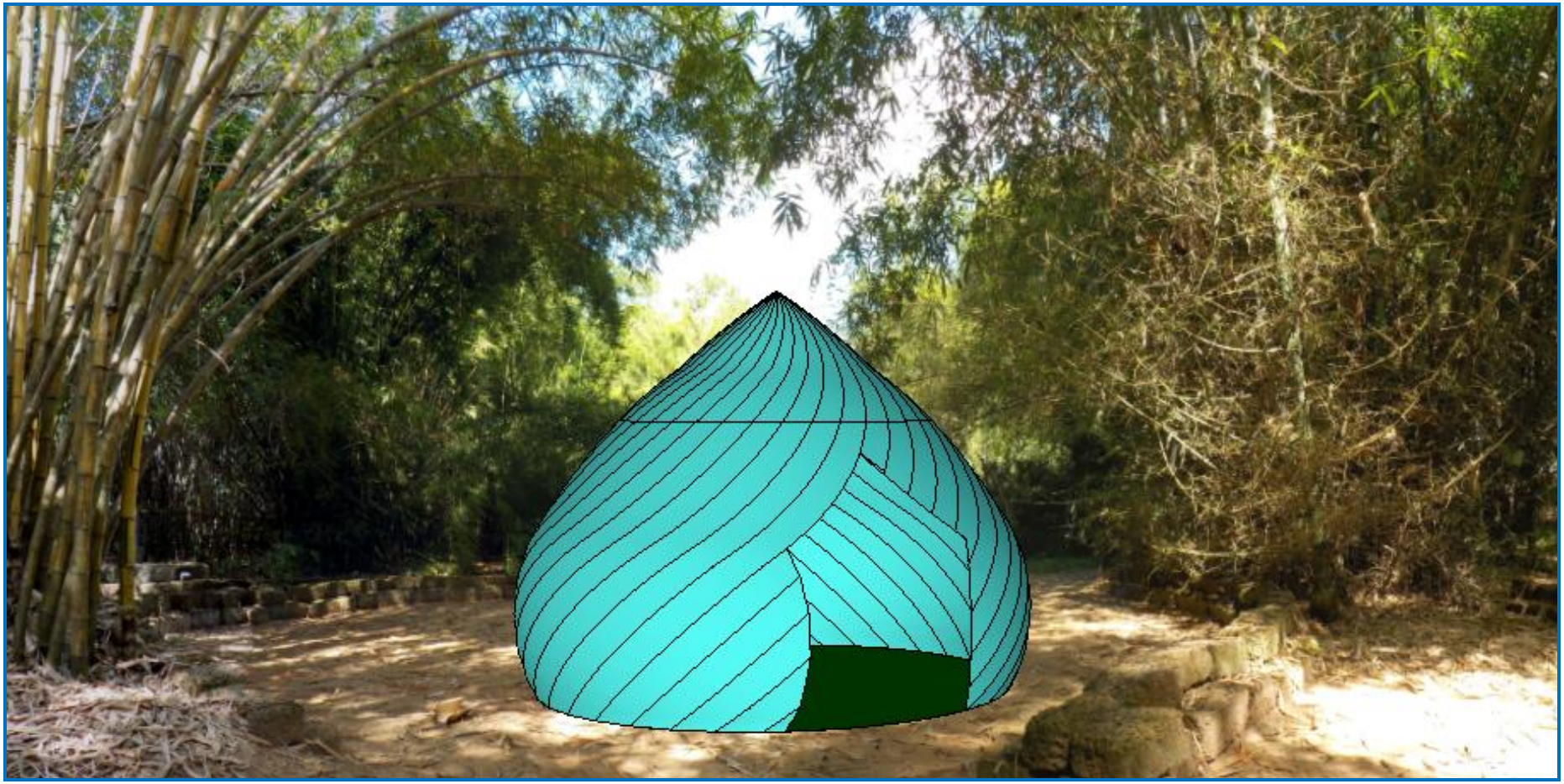
Baseline straight piece – make 2

Note: All holes are7mm Ø to take a 6mm Ø bolt.



Door framing piece – make 2

Note: The two uppermost holes are 4mm Ø, and the bottom hole is 7mm Ø to take a 6mm Ø bolt.



Landscape view