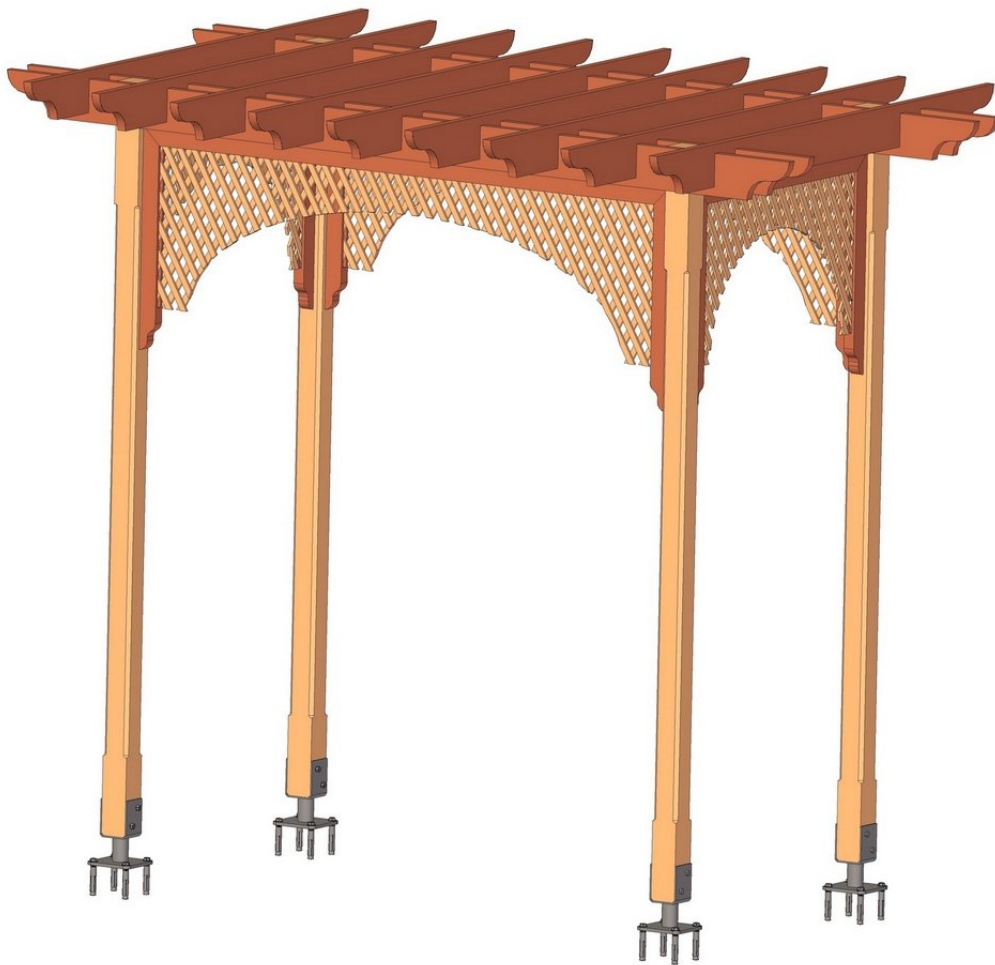


## Arbor with lattice plan

An arbor is a wooden vertical landscape structure most commonly found in gardens, yards, parks, etc. It can be placed at the entrance to a garden or in the middle of a garden or yard, decorated with a lattice or trellis for climbing plants, equipped with a built-in seat or swing, attached to a fence, structure or be freestanding. There are many types of arbor, and all of them have one thing in common - they are a great decoration, and if you equip it with a seat it can give you hours of relaxation and satisfaction while sitting in its shade and watching your garden.



Use construction lumber to make this arbor, if you have lumber of different dimensions than the ones you see in the plan, you need to adjust dimensions of a lumber. It's a very easy job. Arbors can be made from various types of lumber. The best solution is to buy weather resistant lumber (decay-resistant woods) such as cedar, redwood, cypress or similar, and if there is no such option, or it is very expensive, make yourselves an arbor from the lumber available to you and protect it from the elements with some quality coatings. You can also use pressure treated wood. Use exterior grade fasteners.

The arbor design in the plan is adapted for installation on concrete footings, but it can also be installed on a flat concrete surface.

If you decide to make this beautiful wooden arbor, it will definitely become the centerpiece decoration of your garden. It will endure a lifetime, bringing with them all the memories of carefree moments. This arbor will serve as a wonderful protection from the sun, while the overhead criss-crossed structure makes a perfect trellis for climbing plants like grapes, evergreen lonicera, morning glories, clematis and ivy or even a rose.

Arbor structure is very simple and usually consists of 4 posts, a simple slatted roof (canopy) and sides (trellises). An arbor can be made very quickly using a few portable power tools and easy-to-find materials.

To make an arbor like this one requires average carpentry skills, common carpentry tools, and you will manage to build it in 3 - 4 days with plenty of break time.

### **Installation**

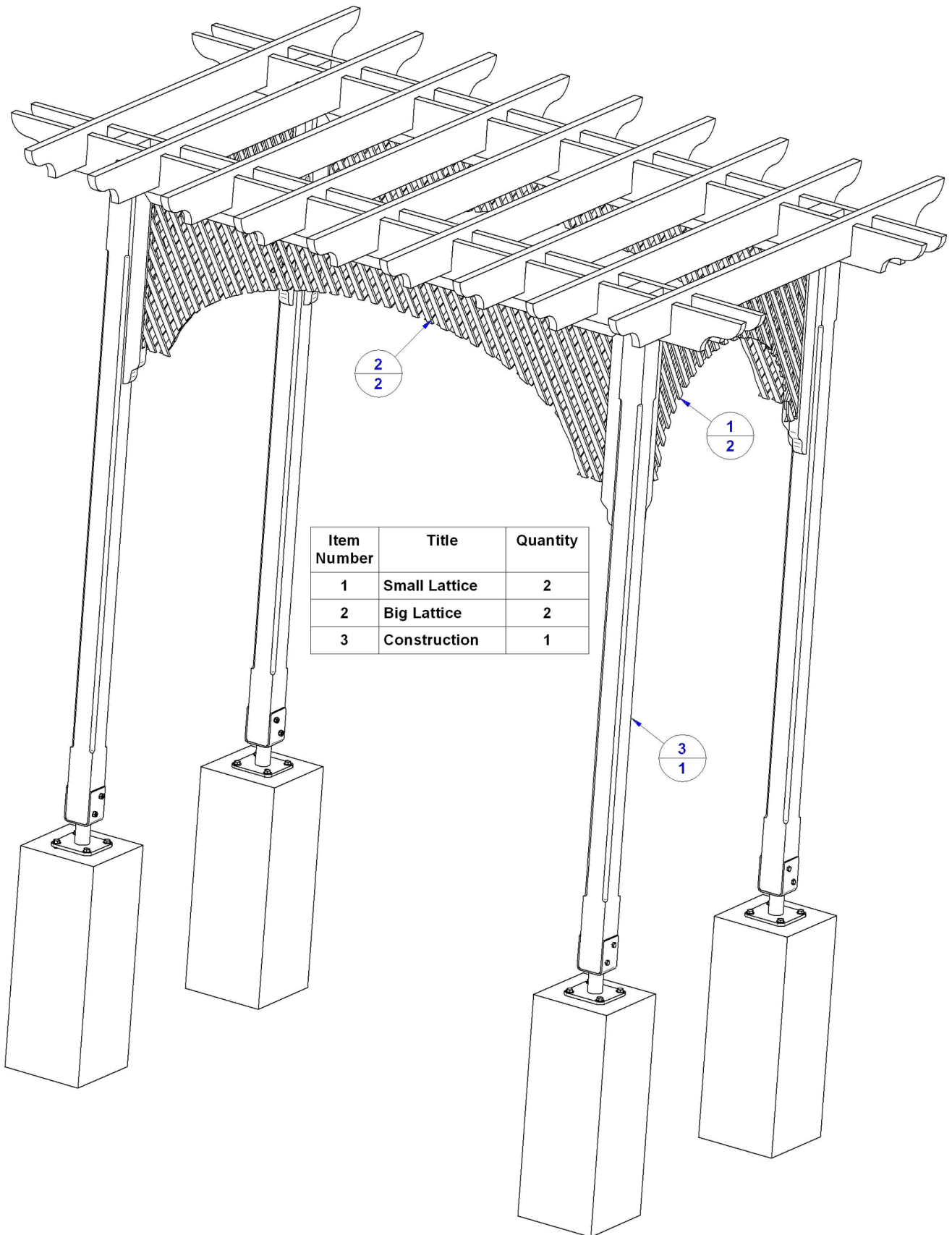
- To start, make all the parts according to the drawings in the plan and purchase some exterior grade fasteners.
- On the flat ground mark the centers for four holes. The distances between the holes are defined in the plan drawings.
- Dig holes centered on the marked locations, to the needed depth plus another 6in for a gravel. Pour 6in of gravel into each hole.
- Put the posts in the holes and level them adding or removing gravel as needed. Then brace the posts. Fill the holes with concrete.
- After the concrete cures, remove the bracing.
- First mount the parts that form the top (canopy) and make sure they are horizontal, then mount the walls (trellis).

### **Finish**

The arbor needs to be protected against humidity/moisture and sun.

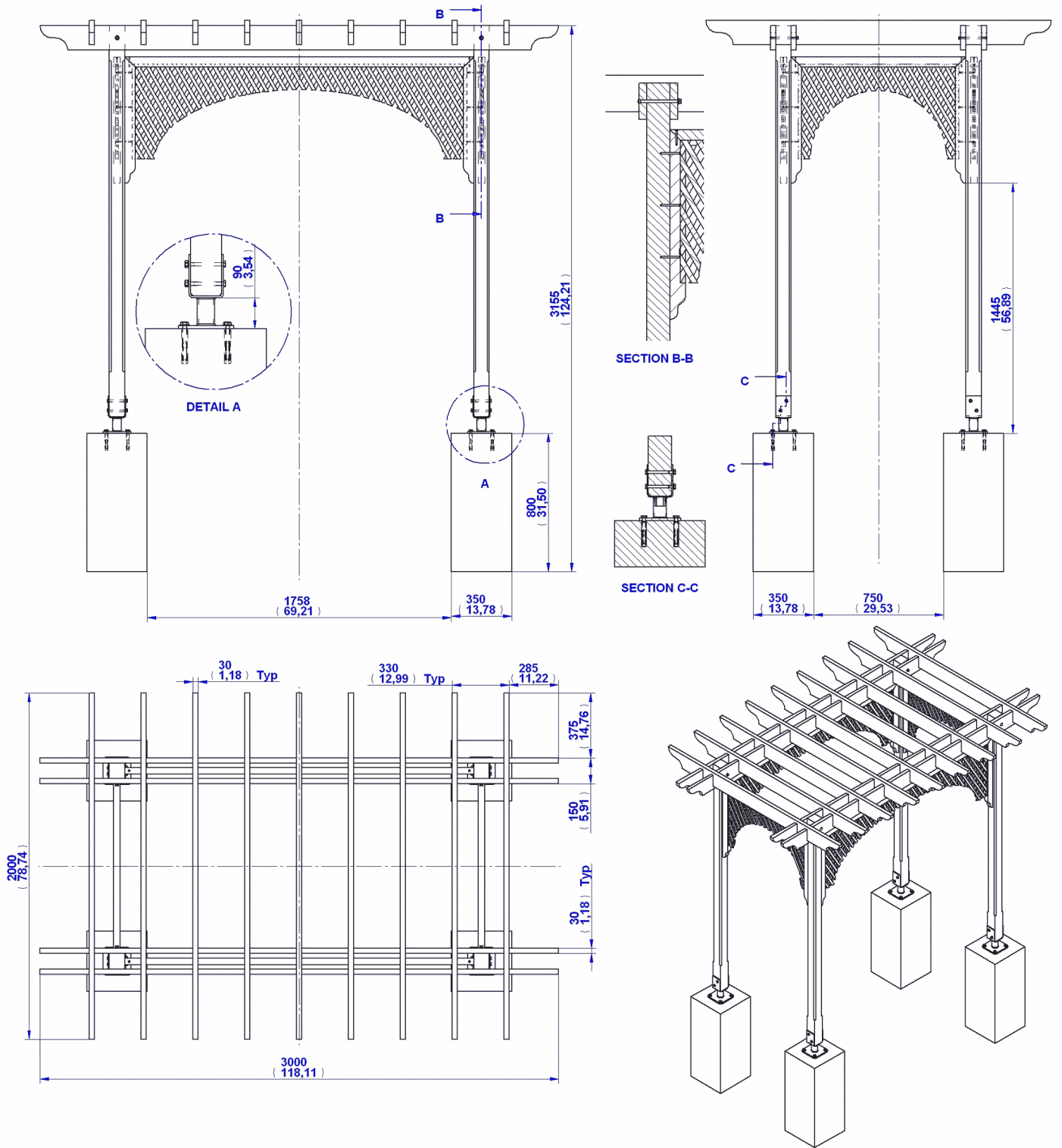
- The simplest finish is to paint the arbor with a color: for example with exterior acrylic paint, or first apply an alkyd primer and then coat the arbor with latex paint. This certainly is a simple solution, but in this way the wooden structure will lose its beauty because its color and texture will be covered. We think this to be the simplest, but also the visually worst solution.
- Exterior oil stain
- As sun protection, coat the arbor with a semi-transparent stain; when the stain dries, you can choose spar varnish or penetrating oil finish as the top coat.
- There are a number of different weather-proofing products for wood available today; if you have no experience, we recommend that you go to a specialist store and ask for advice, or do some search on the Internet.

### Sub-assembly list

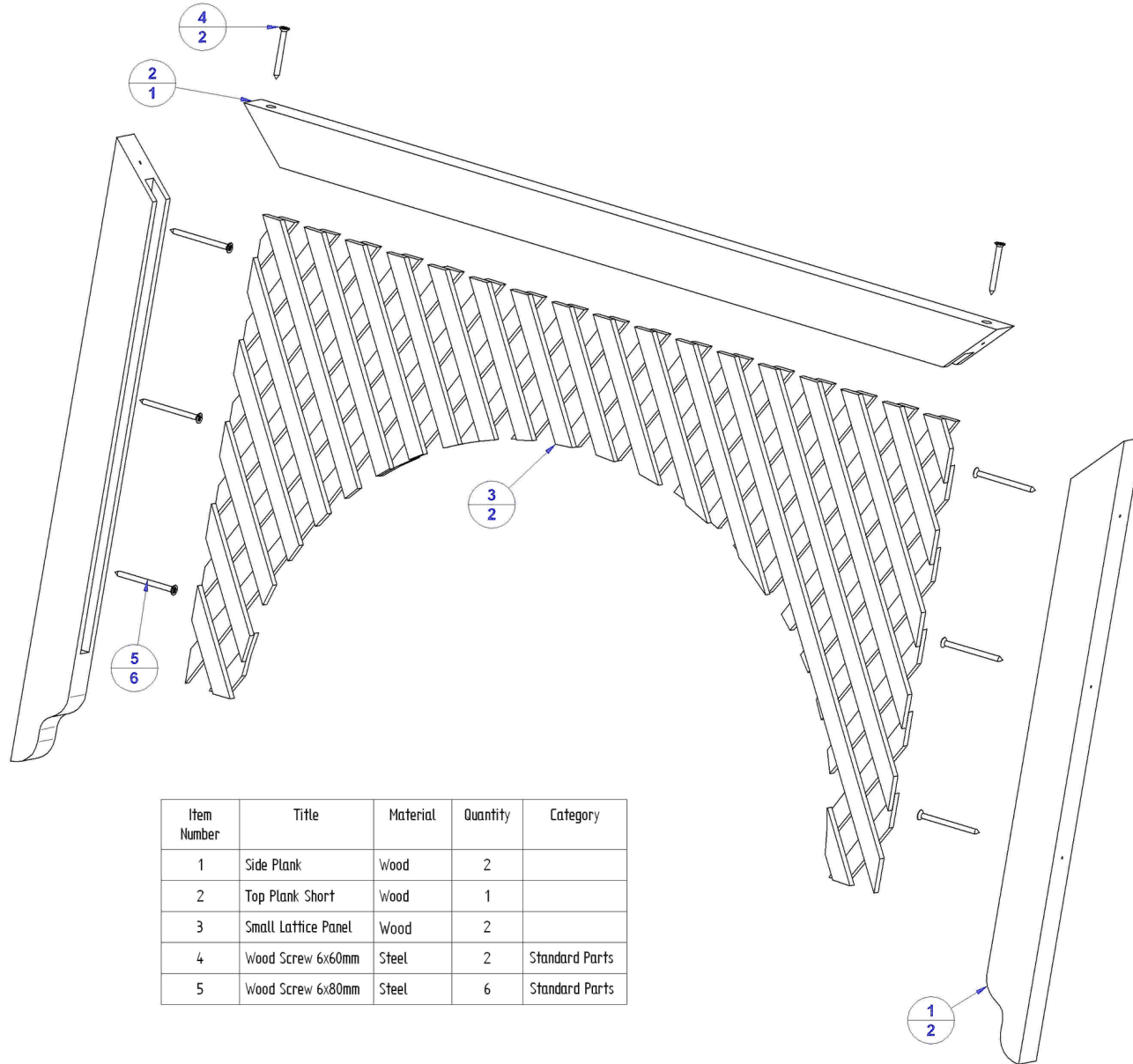


Item Number	Title	Quantity
1	Small Lattice	2
2	Big Lattice	2
3	Construction	1

Assembly drawing

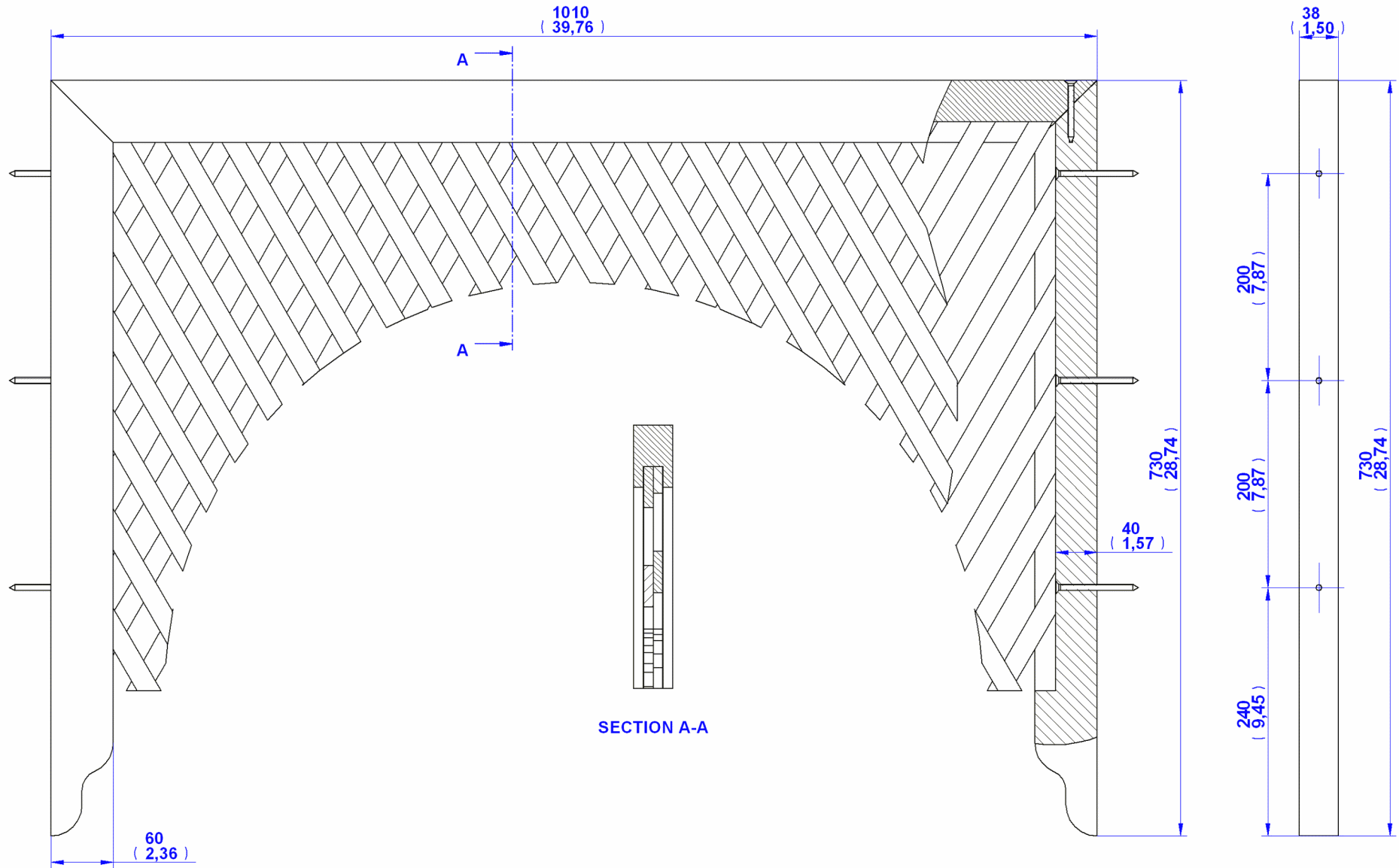


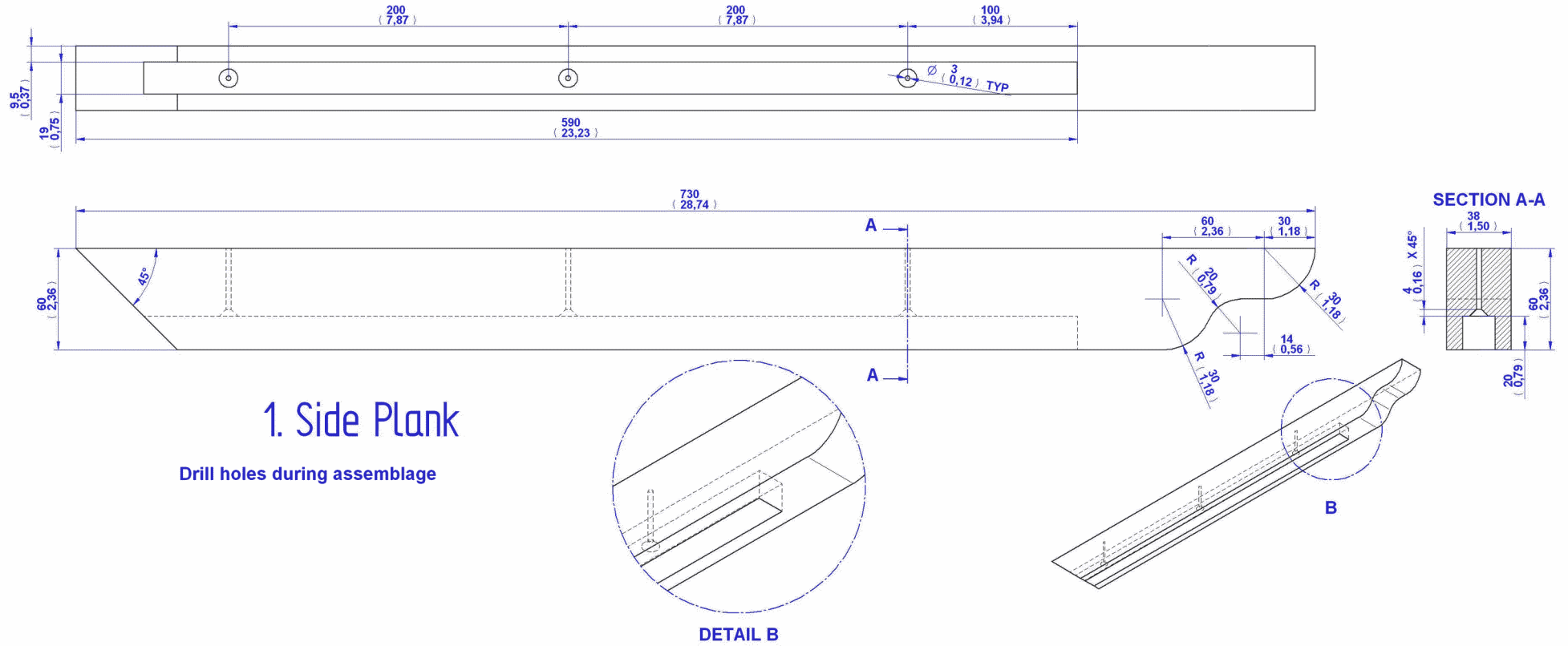
### 1. Small lattice sub-assembly – Parts list

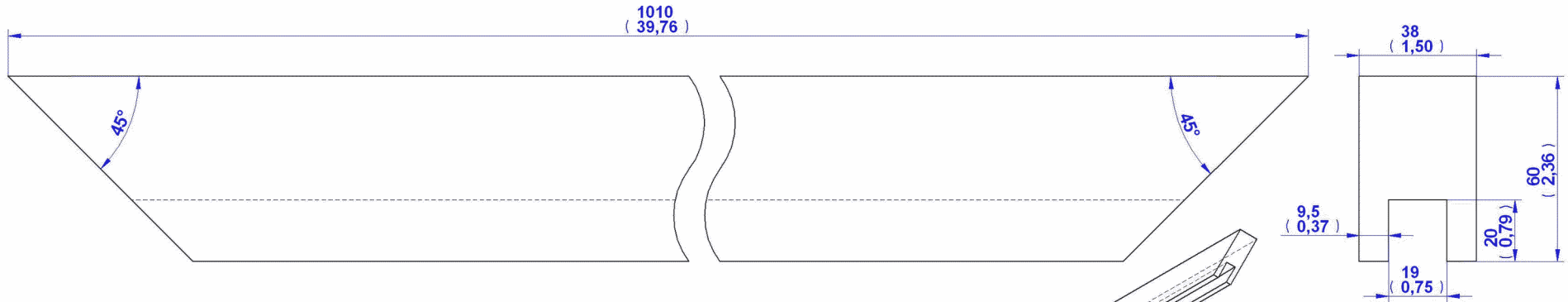


Item Number	Title	Material	Quantity	Category
1	Side Plank	Wood	2	
2	Top Plank Short	Wood	1	
3	Small Lattice Panel	Wood	2	
4	Wood Screw 6x60mm	Steel	2	Standard Parts
5	Wood Screw 6x80mm	Steel	6	Standard Parts

### Small lattice sub-assembly drawing





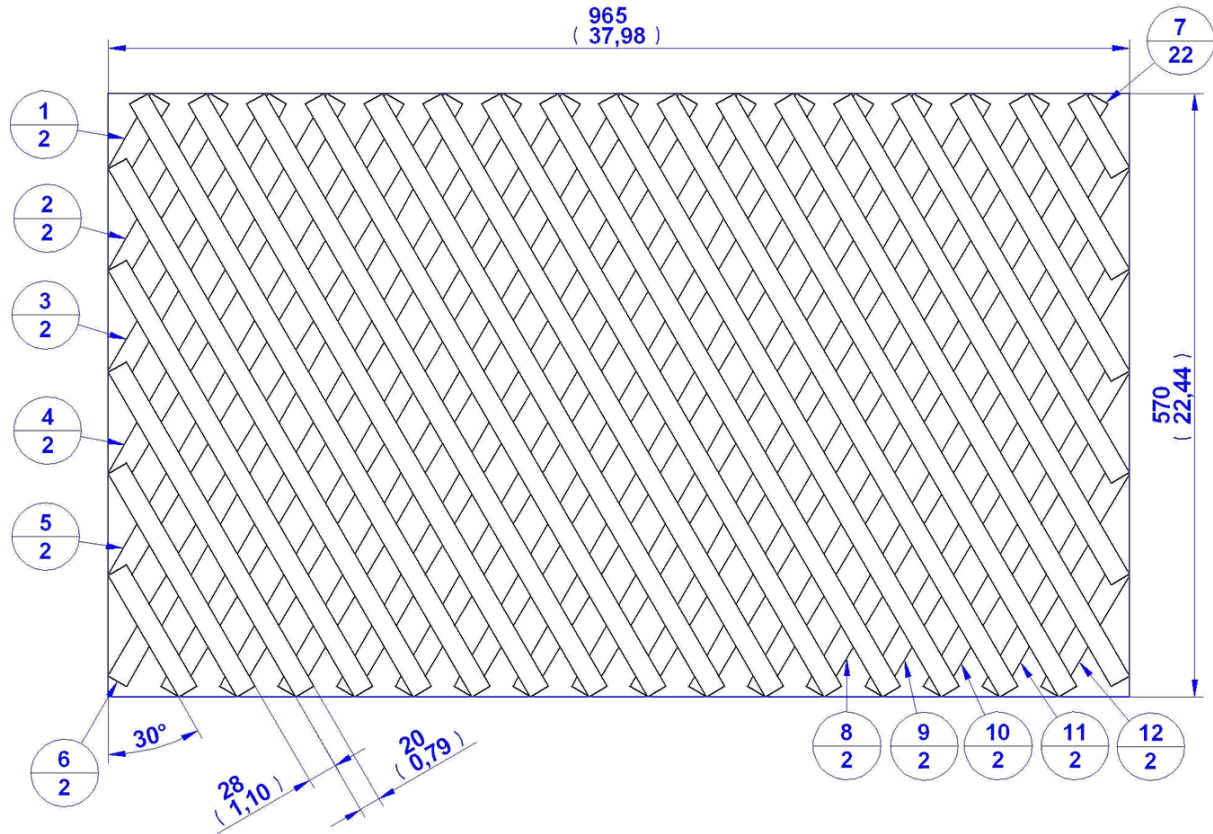


## 2. Top Plank Short



A way to make the subassembly 3 - Small lattice panel

Make the rectangular form with dimensions: 965mm (37,98in) x 570mm (22,44in) out of the slats of dimensions: 20mm (0,79in)x 9mm (0,35in). Length of the slats are shown in the sheet on the bottom picture.

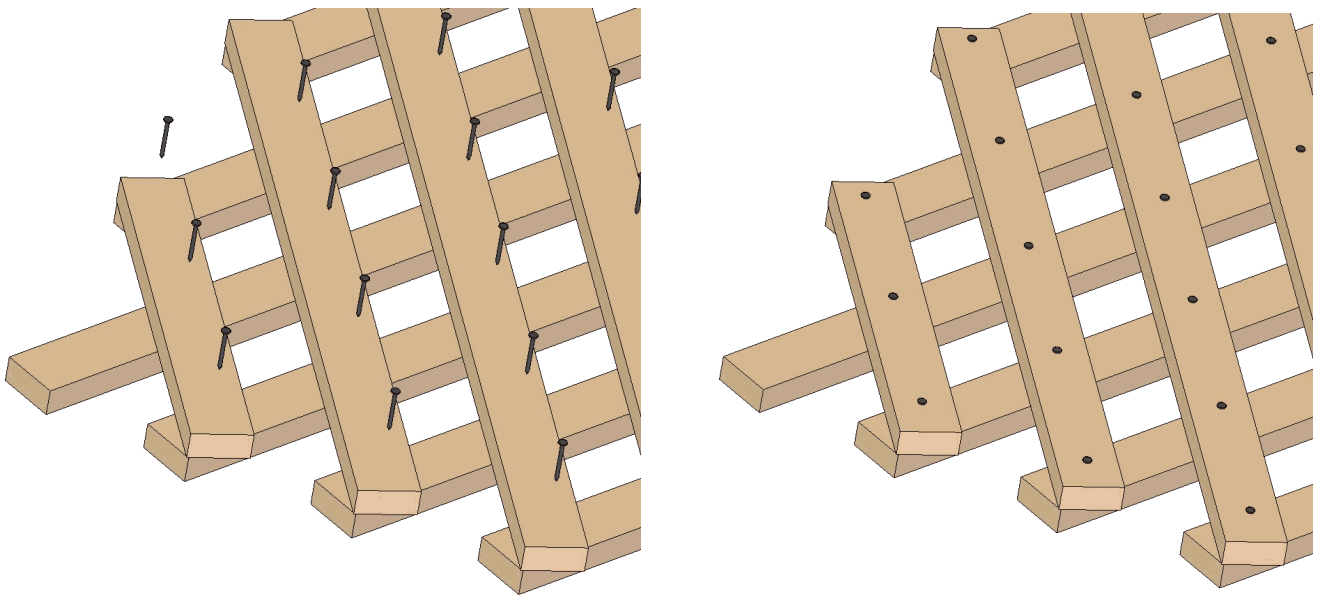


### 3. Small Lattice Panel

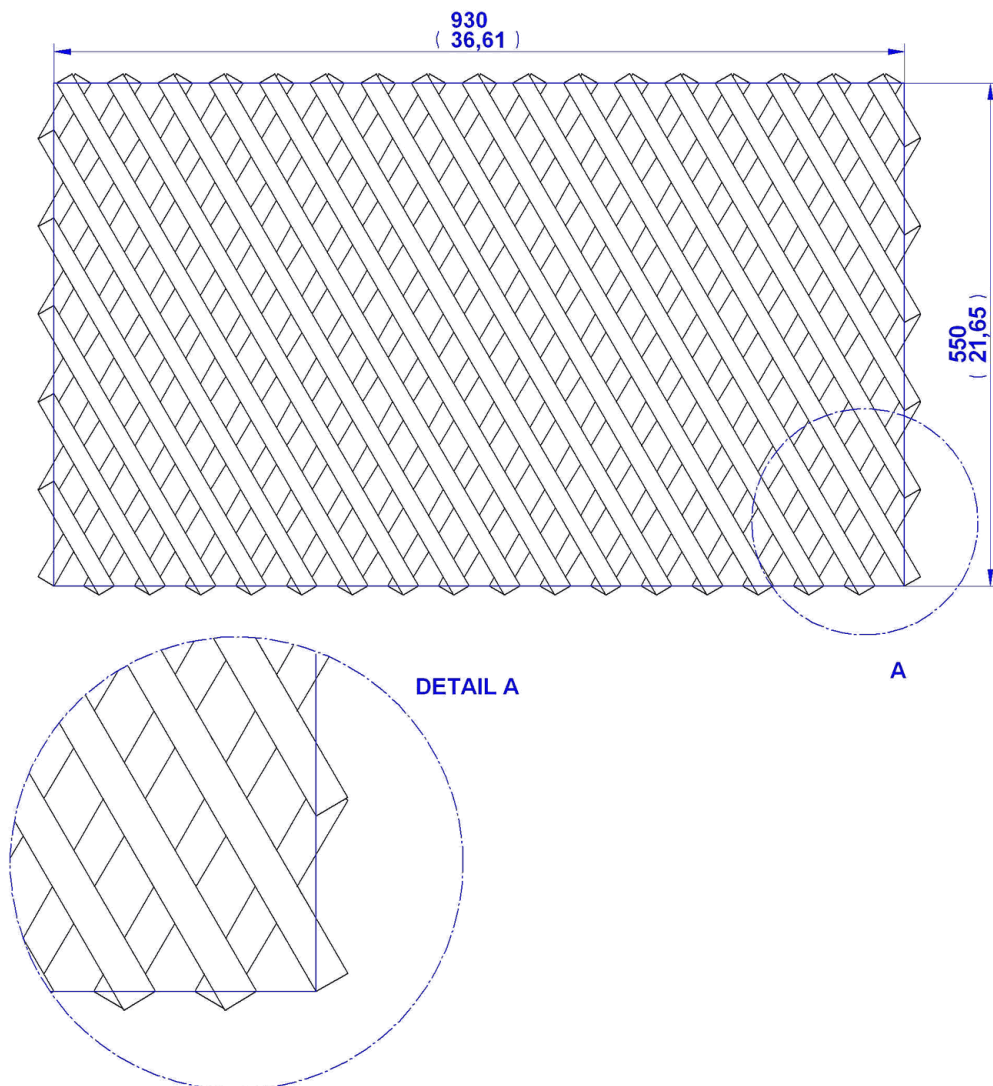
SECTION - Rectangle 20 x 9mm

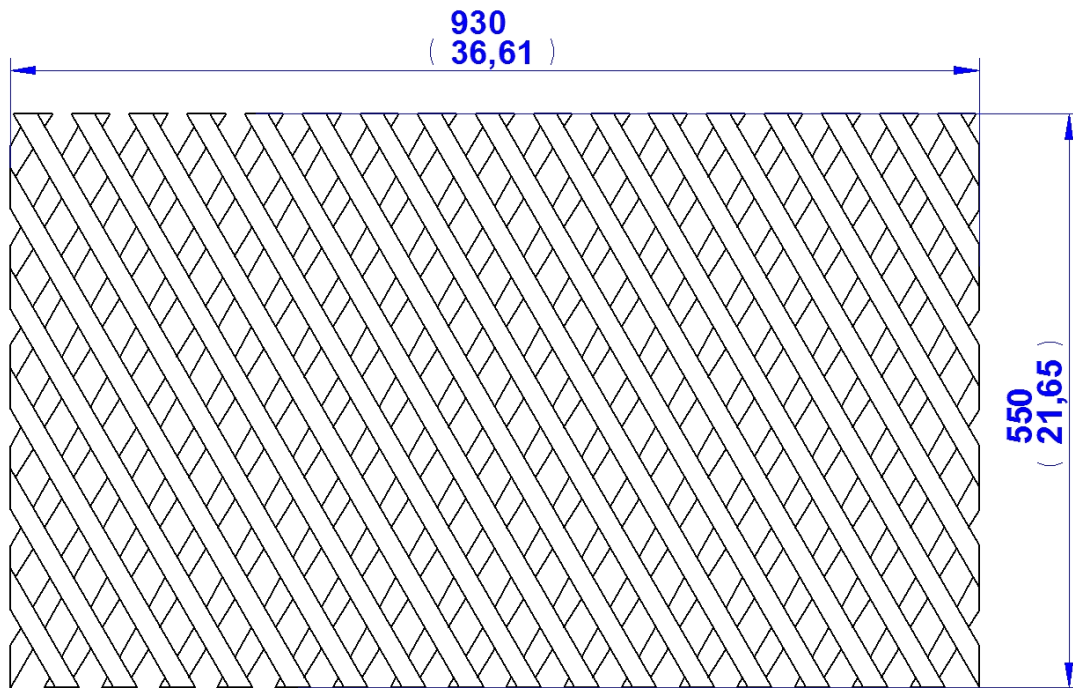
Item Number	Title	Material	Quantity	Cut Length
1	Plank 1	Wood	2	81,00mm
2	Plank 2	Wood	2	192,00mm
3	Plank 3	Wood	2	303,00mm
4	Plank 4	Wood	2	413,00mm
5	Plank 5	Wood	2	524,00mm
6	Plank 6	Wood	2	635,00mm
7	Plank 7	Wood	22	647,00mm
8	Plank 8	Wood	2	576,00mm
9	Plank 9	Wood	2	466,00mm
10	Plank 10	Wood	2	355,00mm
11	Plank 11	Wood	2	244,00mm
12	Plank 12	Wood	2	133,00mm

Join the slats together with nails of maximal length 18mm (0,71in).

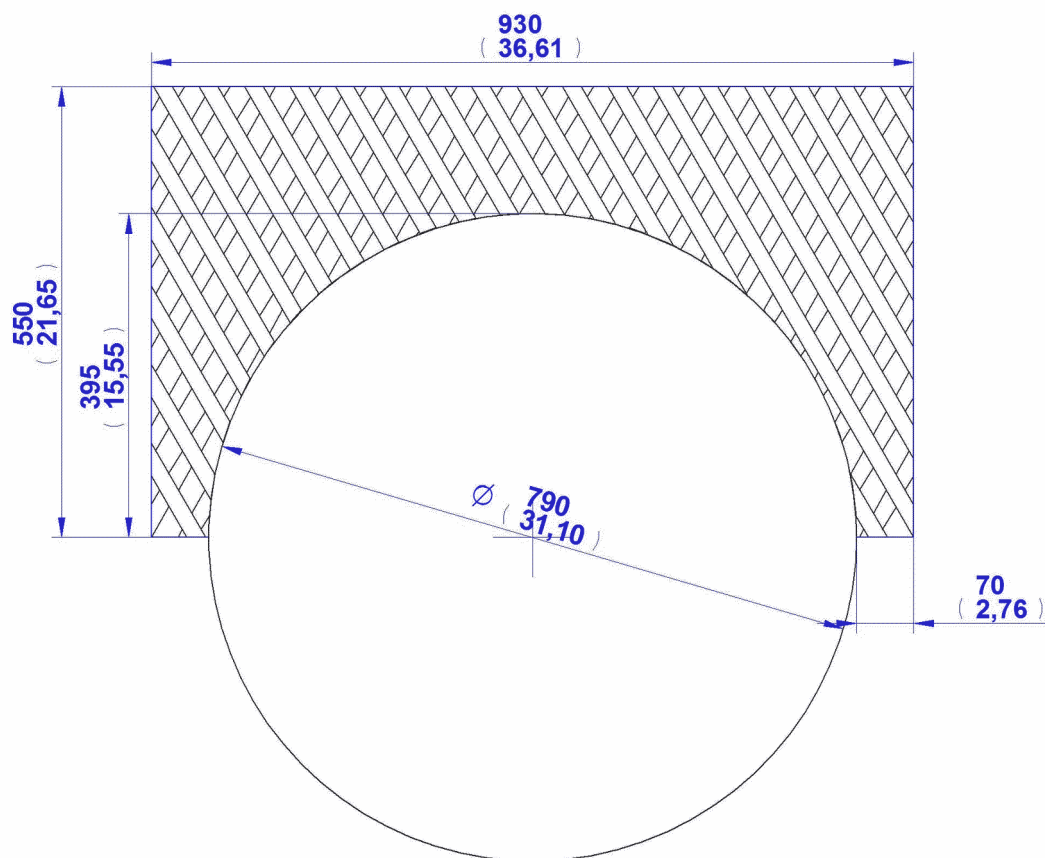


Cut this panel very carefully with saw to the dimensions 930mm (36,61in) x 550mm (21,65).

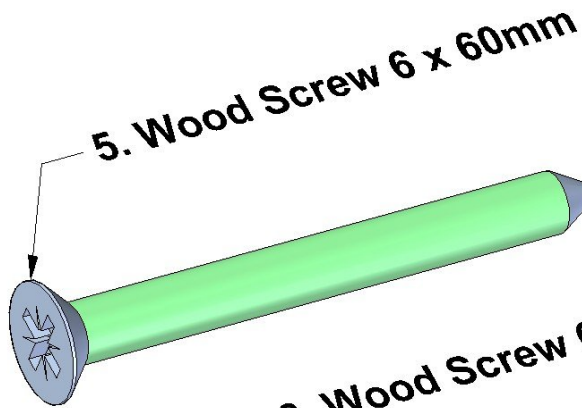




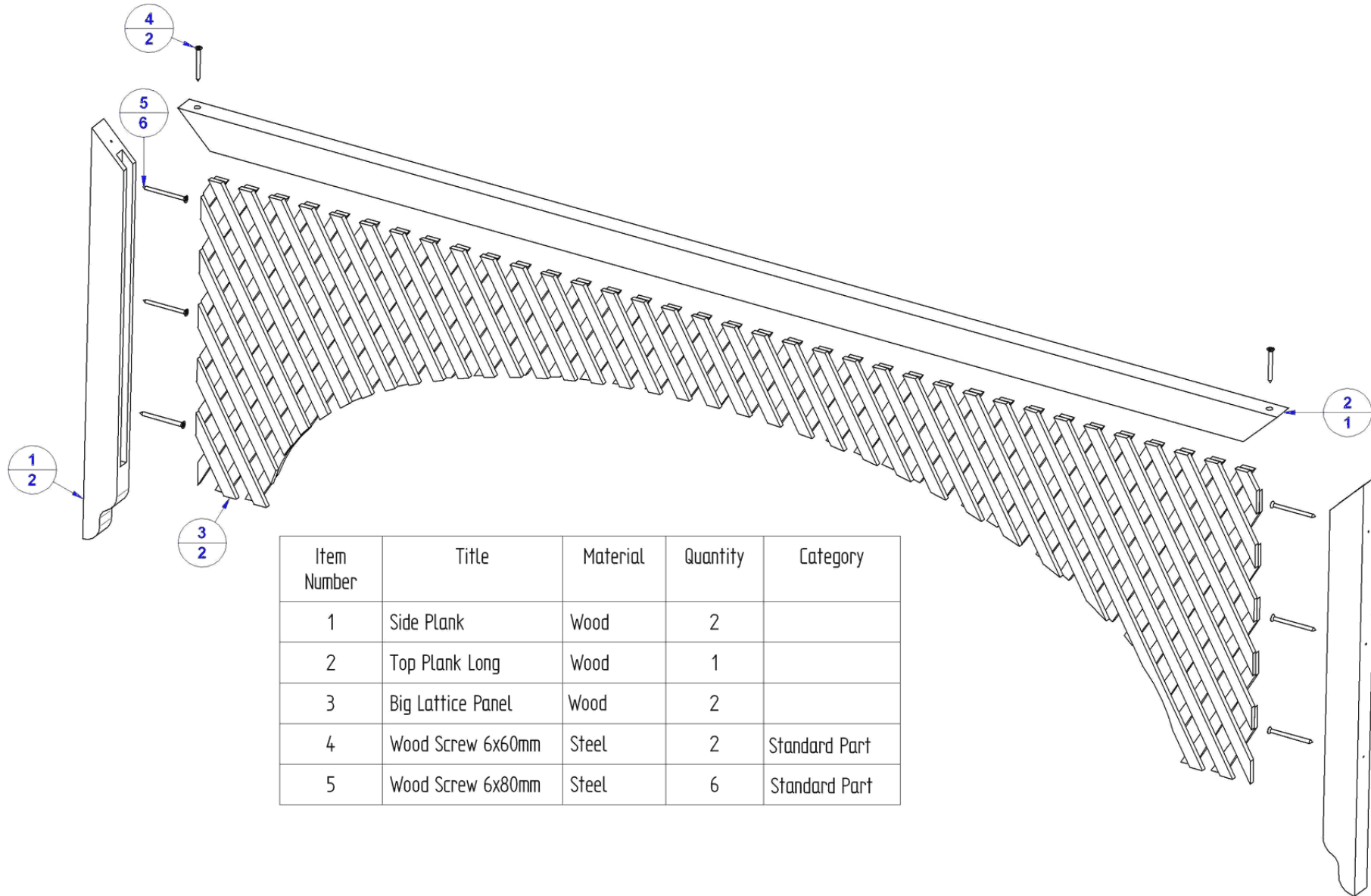
Now, cut out the circle from the panel, with diameter 790mm (31,10in). Take special attention to the nails while cutting, so you do not get injured.



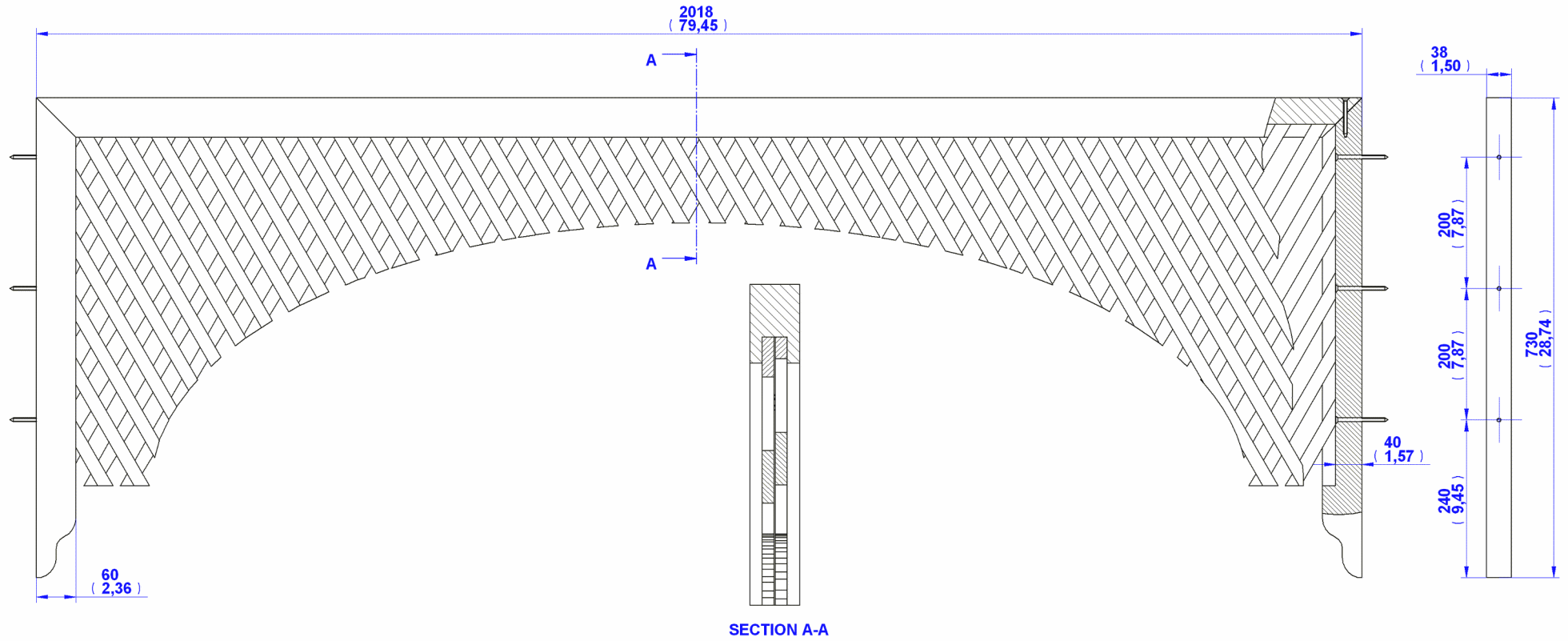
## Standard Parts

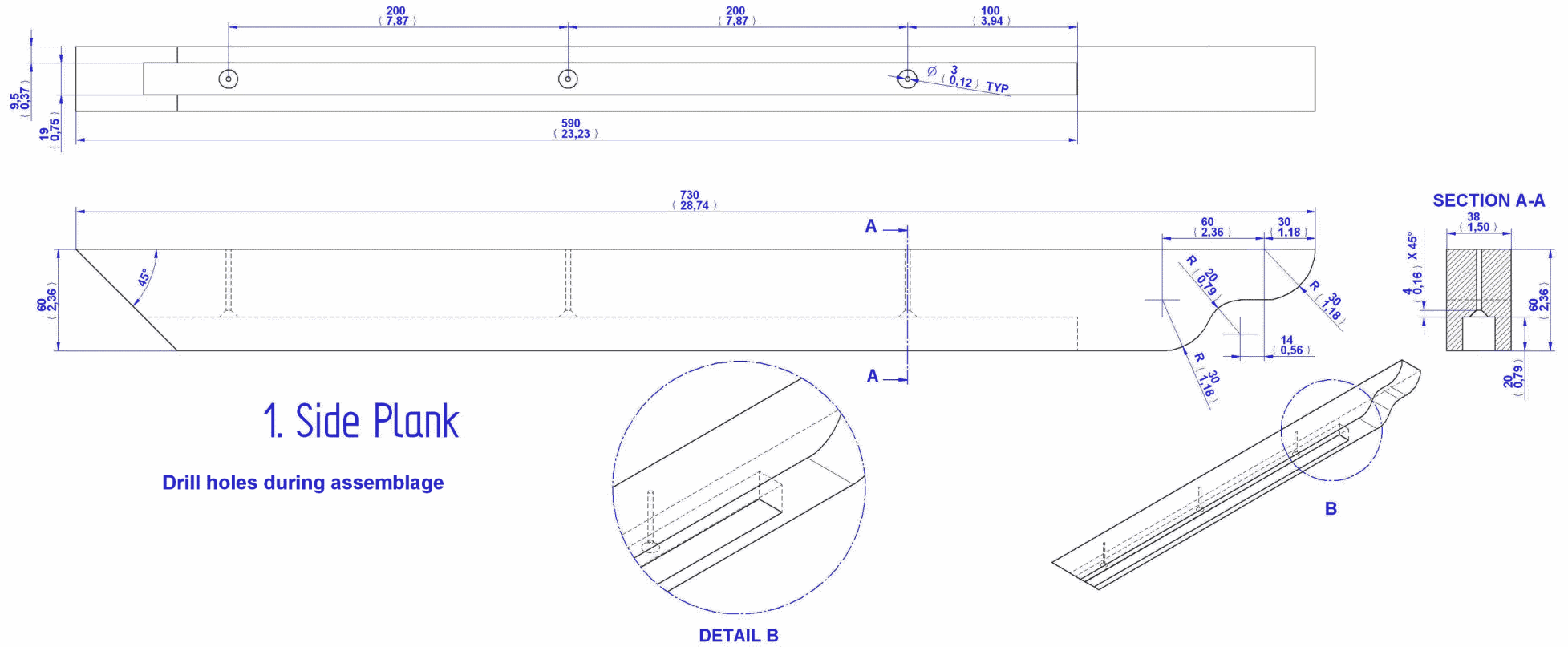


## 2. Big lattice sub-assembly – Part list



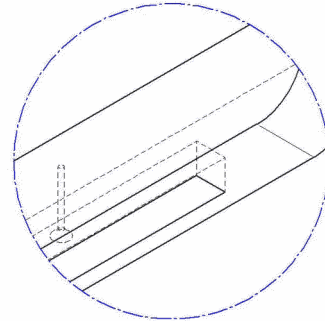
### Big lattice sub-assembly drawing



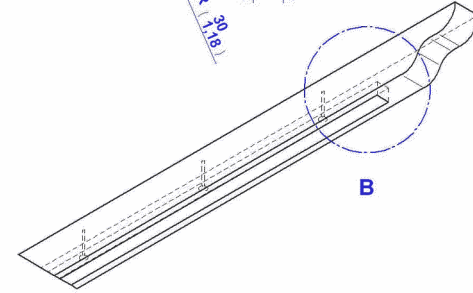


# 1. Side Plank

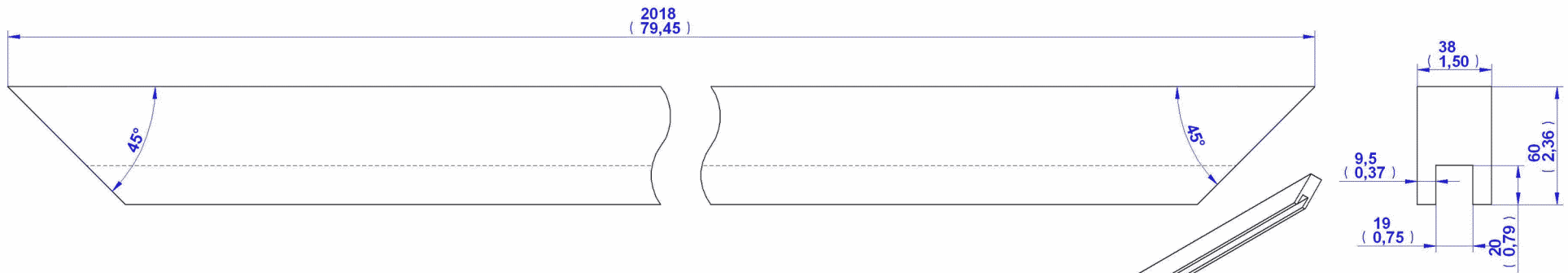
Drill holes during assemblage



DETAIL B



B

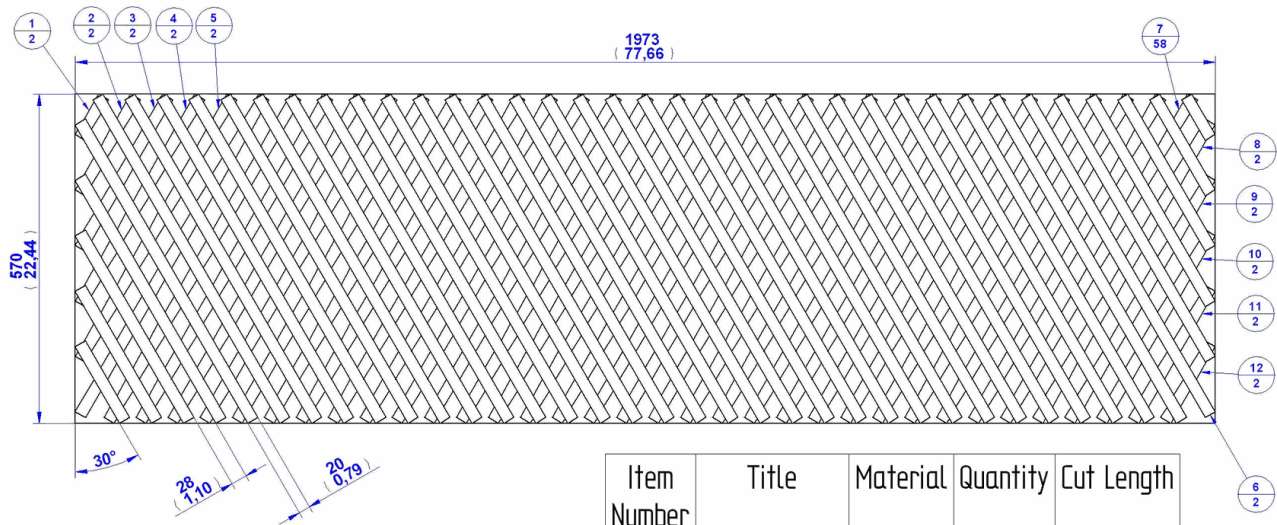


2. Top Plank Long



## A way to make the subassembly 3 - Big lattice panel

Make the rectangular form with dimensions: 1973mm (77,66in) x 570mm (22,44in) out of the slats of dimensions: 20mm (0,79in)x 9mm (0,35in). The length of the slats are shown in the sheet on the bottom picture.

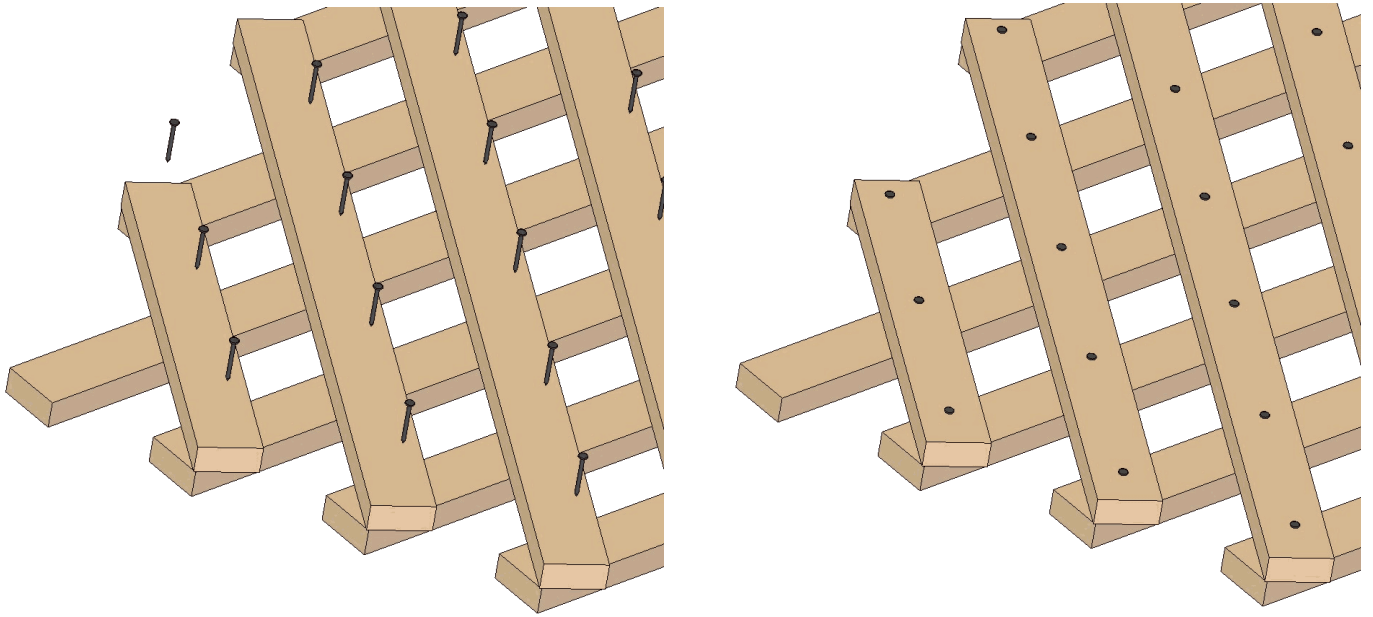


SECTION – Rectangle 20 x 9mm

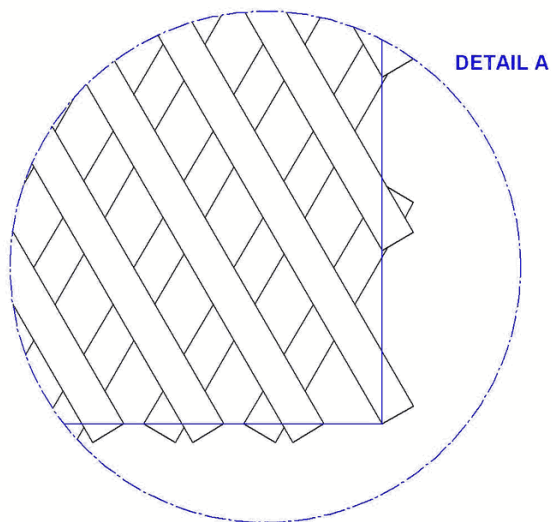
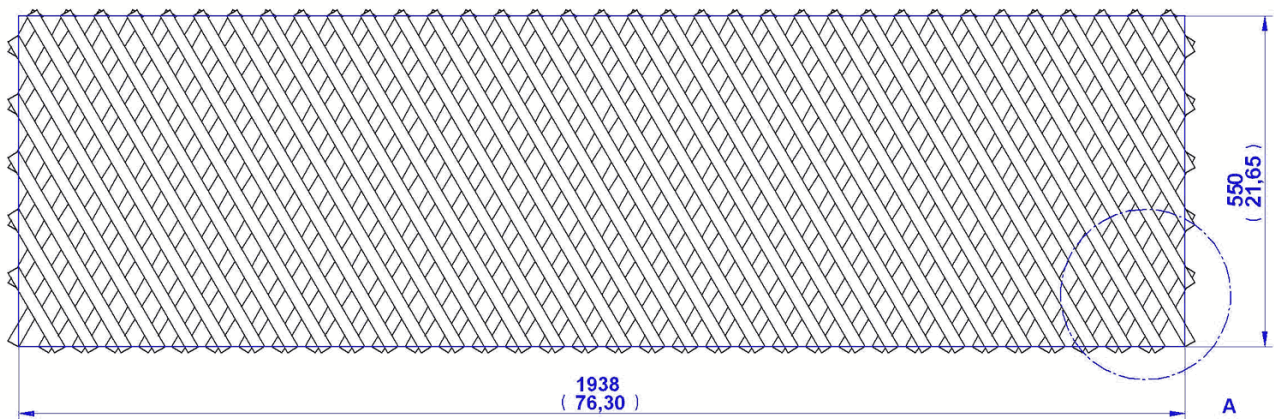
### 3. Big Lattice Panel

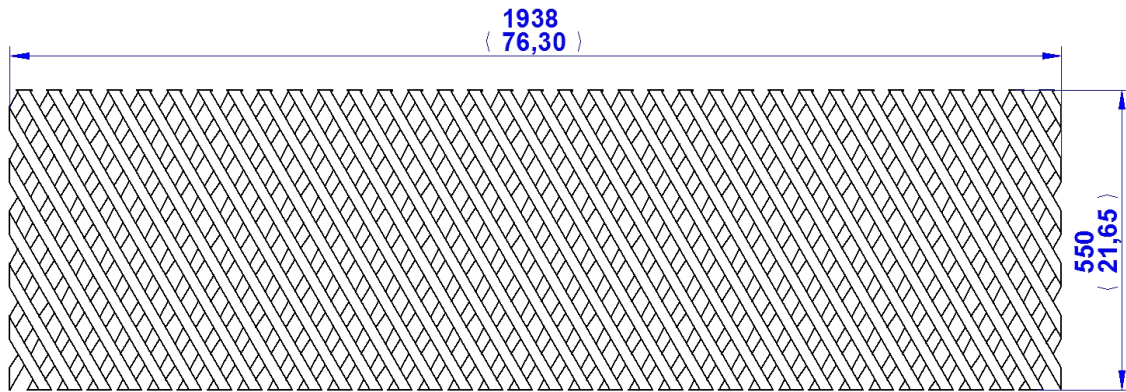
Item Number	Title	Material	Quantity	Cut Length
1	Plank 1	Wood	2	81,00mm
2	Plank 2	Wood	2	192,00mm
3	Plank 3	Wood	2	303,00mm
4	Plank 4	Wood	2	413,00mm
5	Plank 5	Wood	2	524,00mm
6	Plank 6	Wood	2	635,00mm
7	Plank 7	Wood	58	647,00mm
8	Plank 13	Wood	2	597,00mm
9	Plank 14	Wood	2	486,00mm
10	Plank 15	Wood	2	375,00mm
11	Plank 16	Wood	2	264,00mm
12	Plank 17	Wood	2	153,00mm

Join the slats together with nails of maximal length 18mm (0,71in).

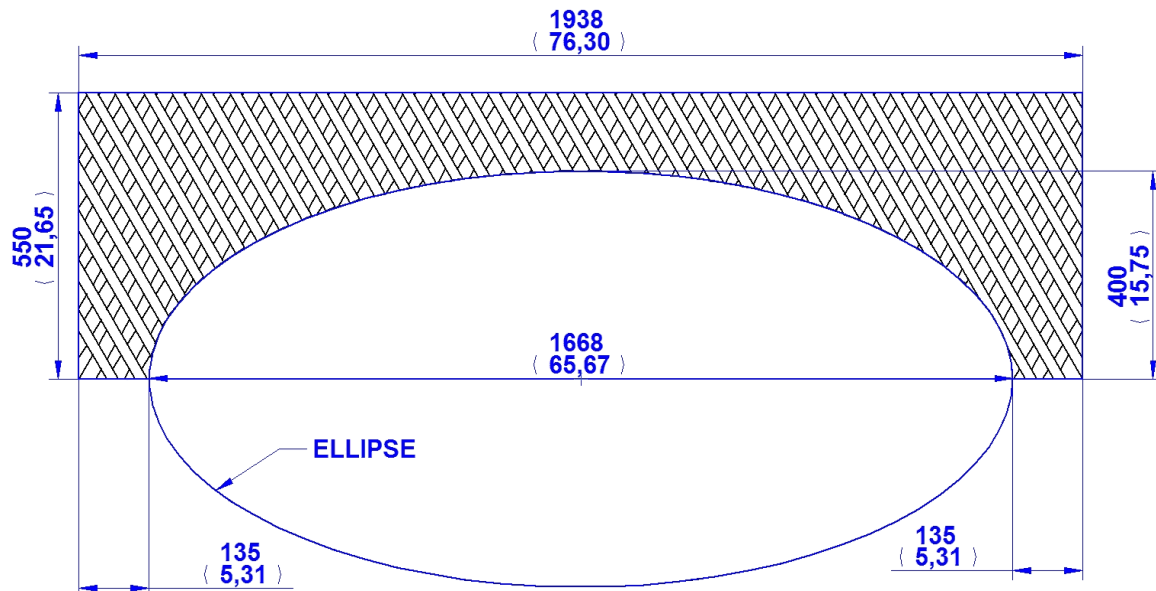


Cut this panel very carefully with saw to the dimensions 1938mm (76,30in) x 550mm (21,65).

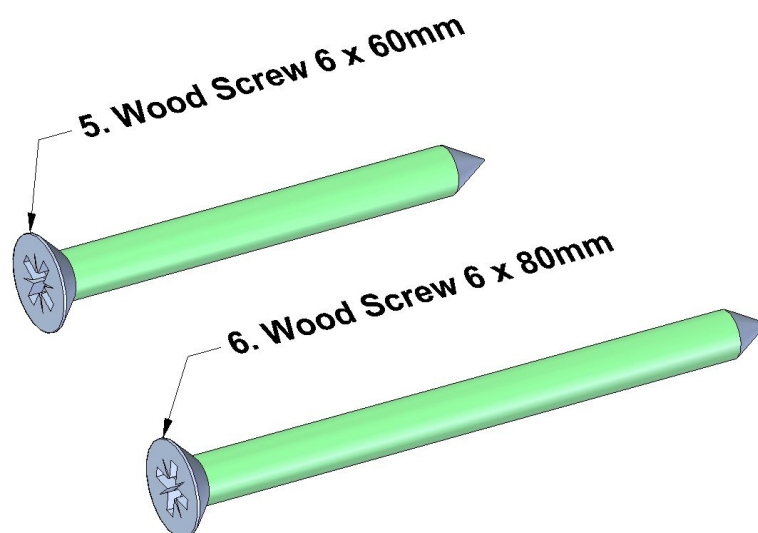




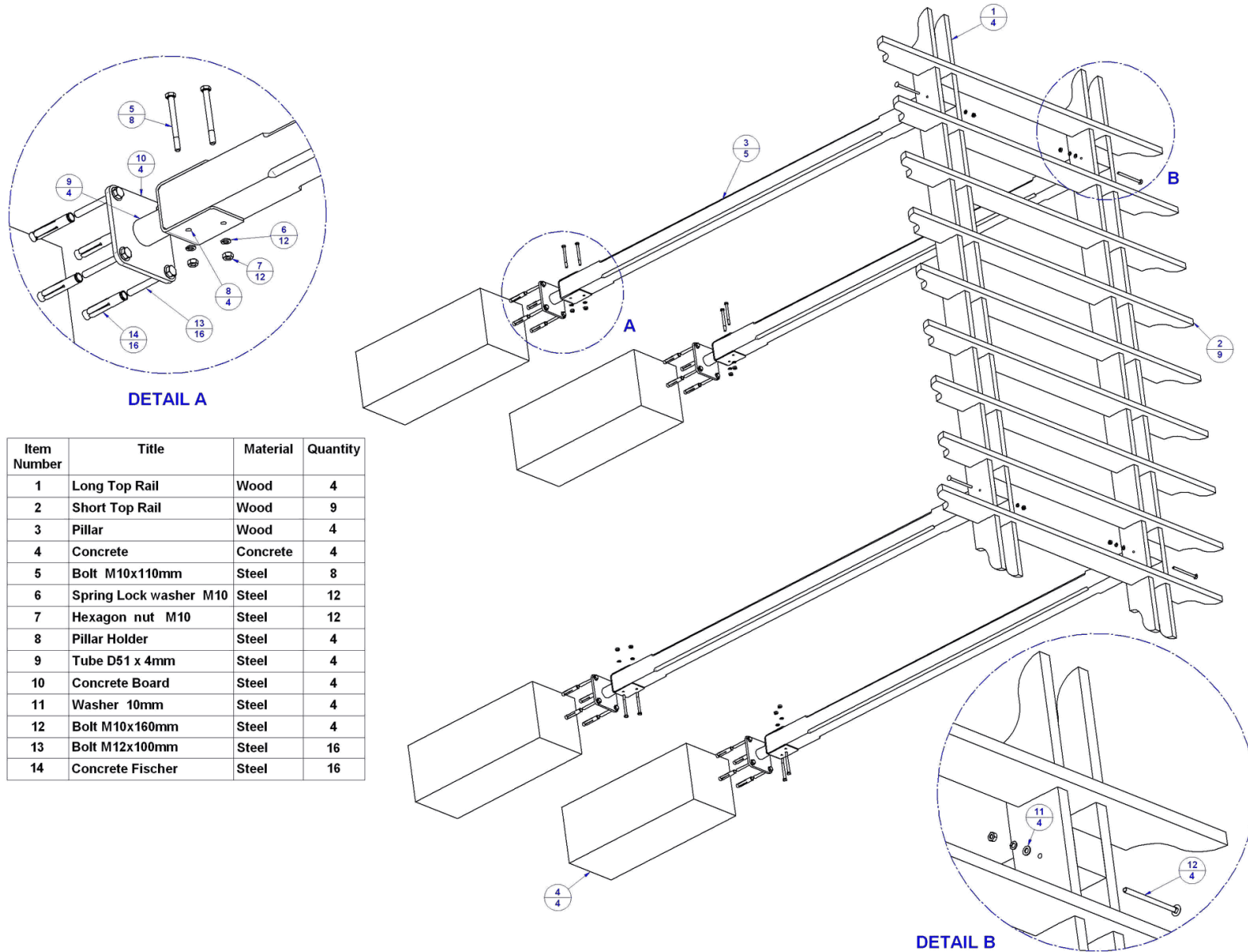
Now, cut out the ellipse from the panel, just as it is shown on the bottom picture. Take special attention to the nails during cutting, so you do not get injured.



### Standard Parts

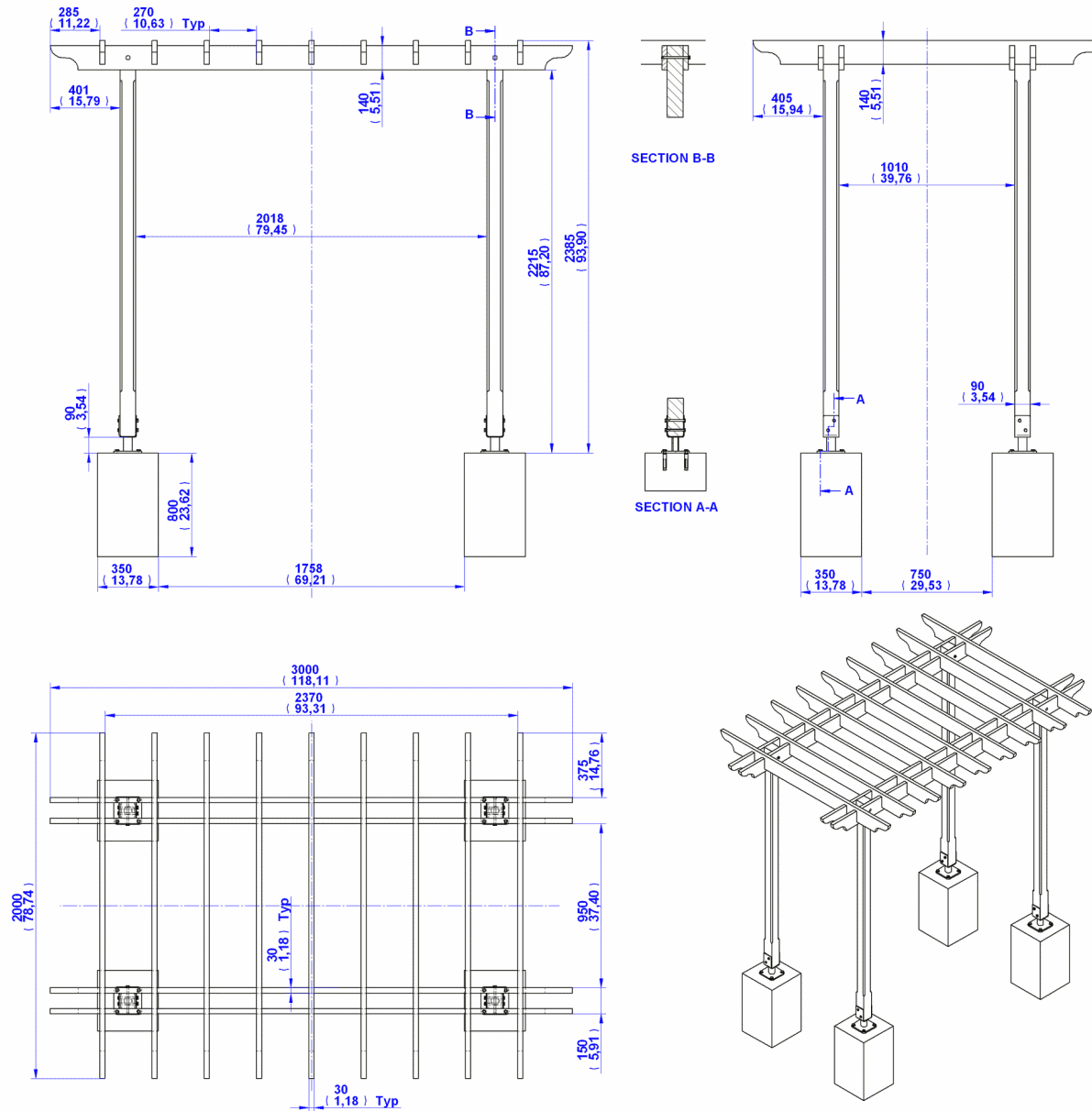


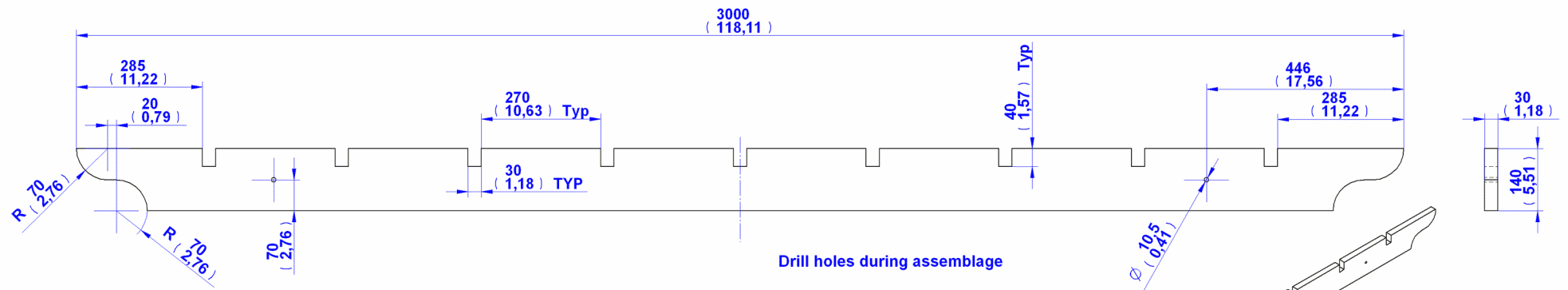
### 3. Construction sub-assembly – Parts list



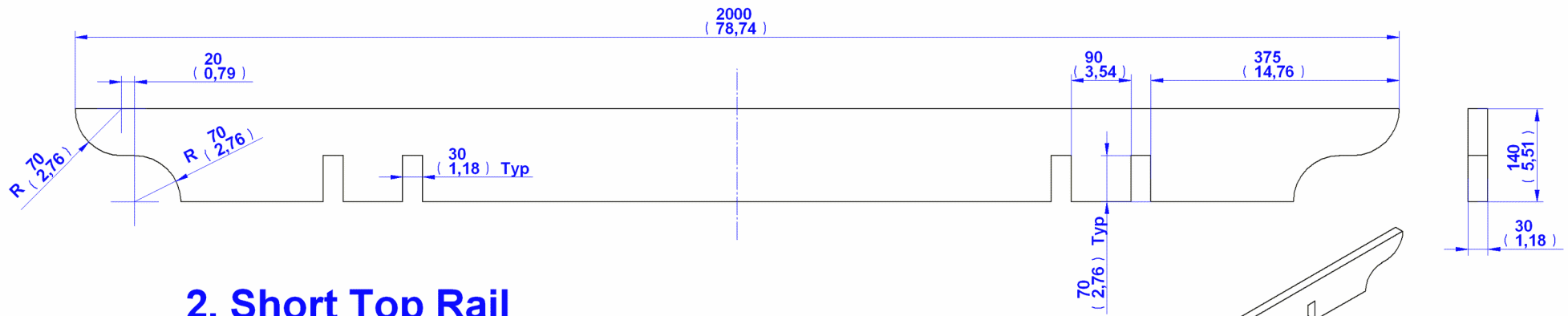
Item Number	Title	Material	Quantity
1	Long Top Rail	Wood	4
2	Short Top Rail	Wood	9
3	Pillar	Wood	4
4	Concrete	Concrete	4
5	Bolt M10x110mm	Steel	8
6	Spring Lock washer M10	Steel	12
7	Hexagon nut M10	Steel	12
8	Pillar Holder	Steel	4
9	Tube D51 x 4mm	Steel	4
10	Concrete Board	Steel	4
11	Washer 10mm	Steel	4
12	Bolt M10x160mm	Steel	4
13	Bolt M12x100mm	Steel	16
14	Concrete Fischer	Steel	16

### Construction sub-assembly drawing

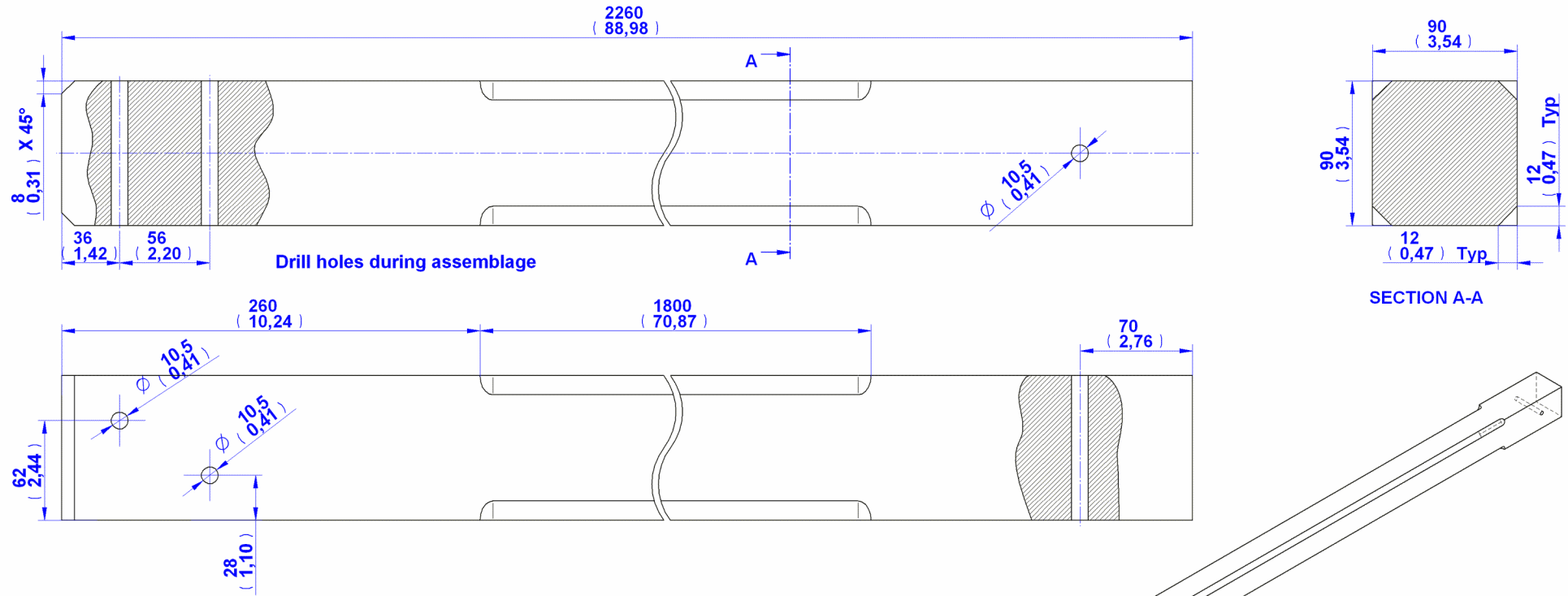




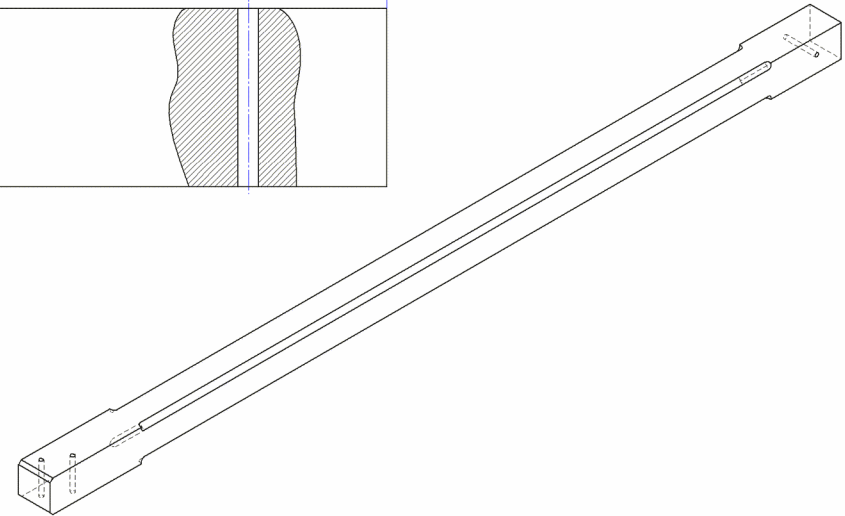
# 1. Long Top Rail



## 2. Short Top Rail

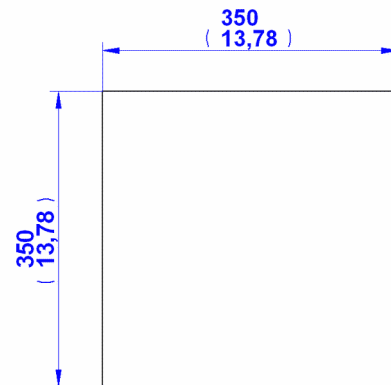
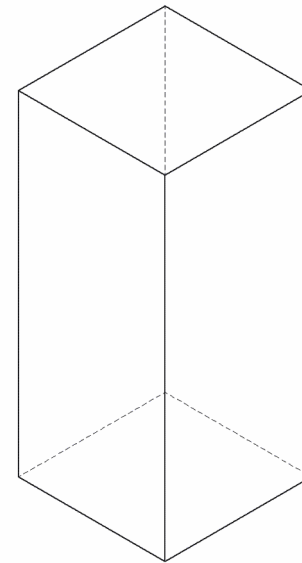
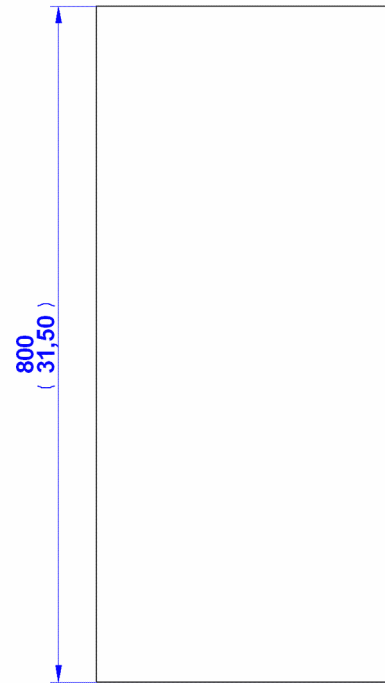


### 3. Pillar



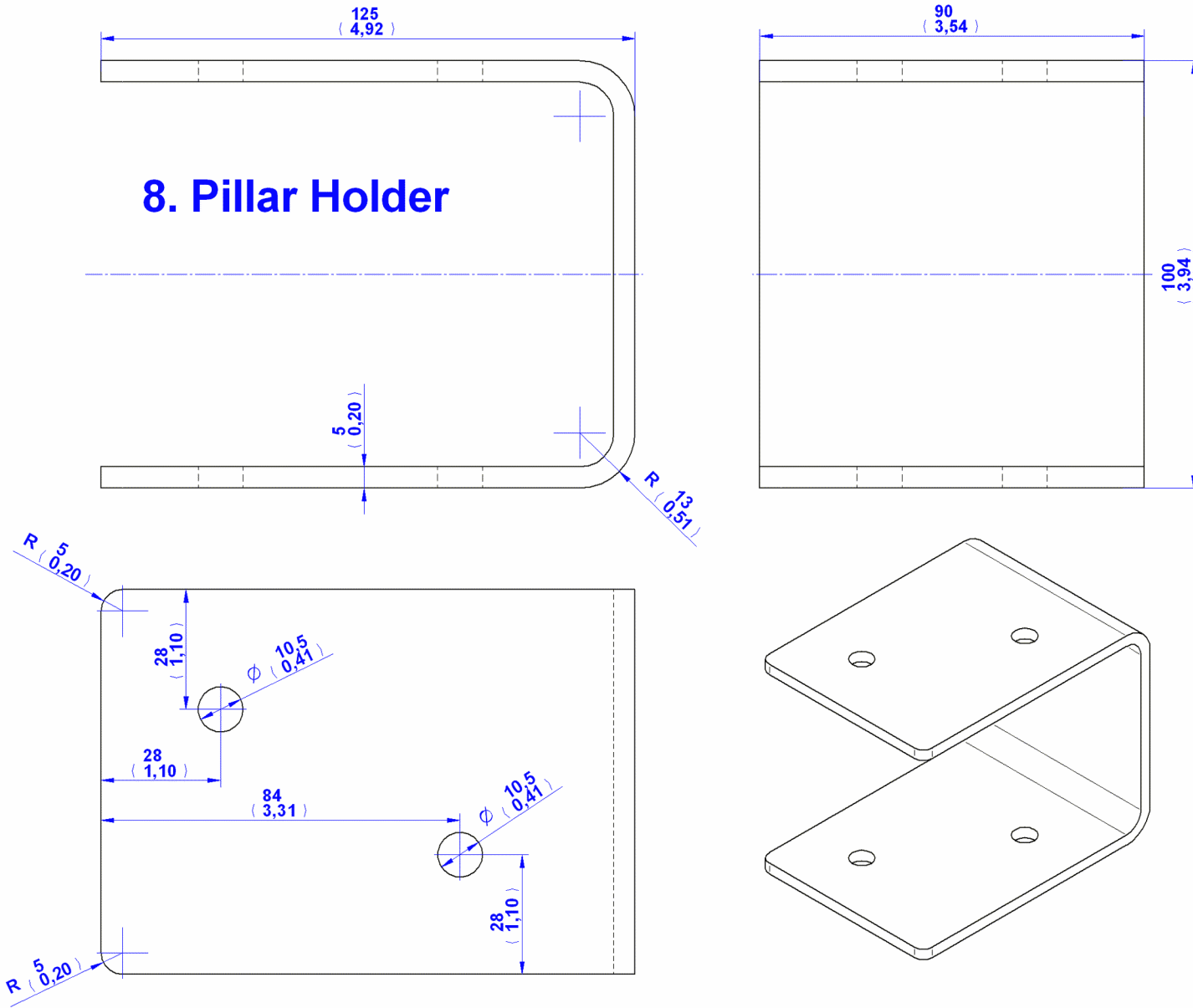
You can accommodate the Length L =2260mm (88,98In) as you like, because the Length L defines the height of the whole Arbor.

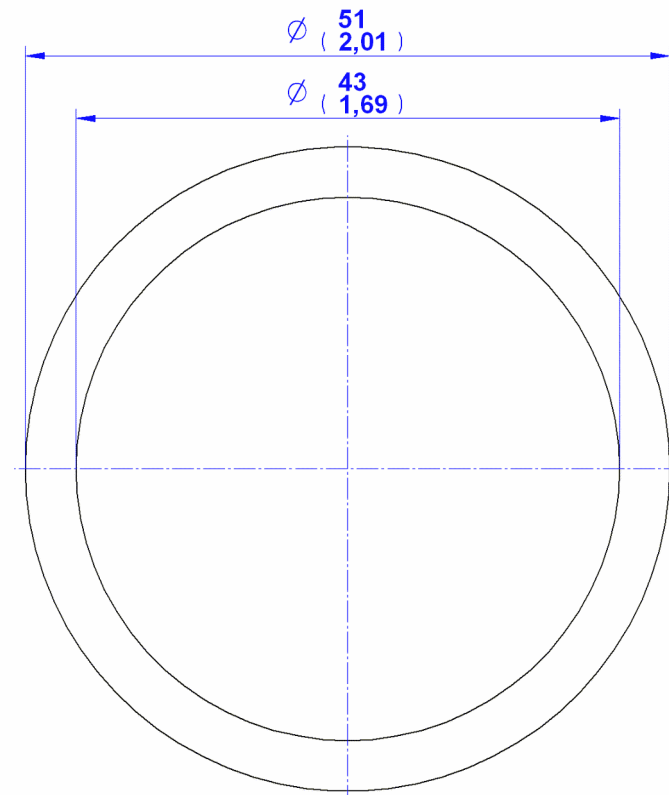
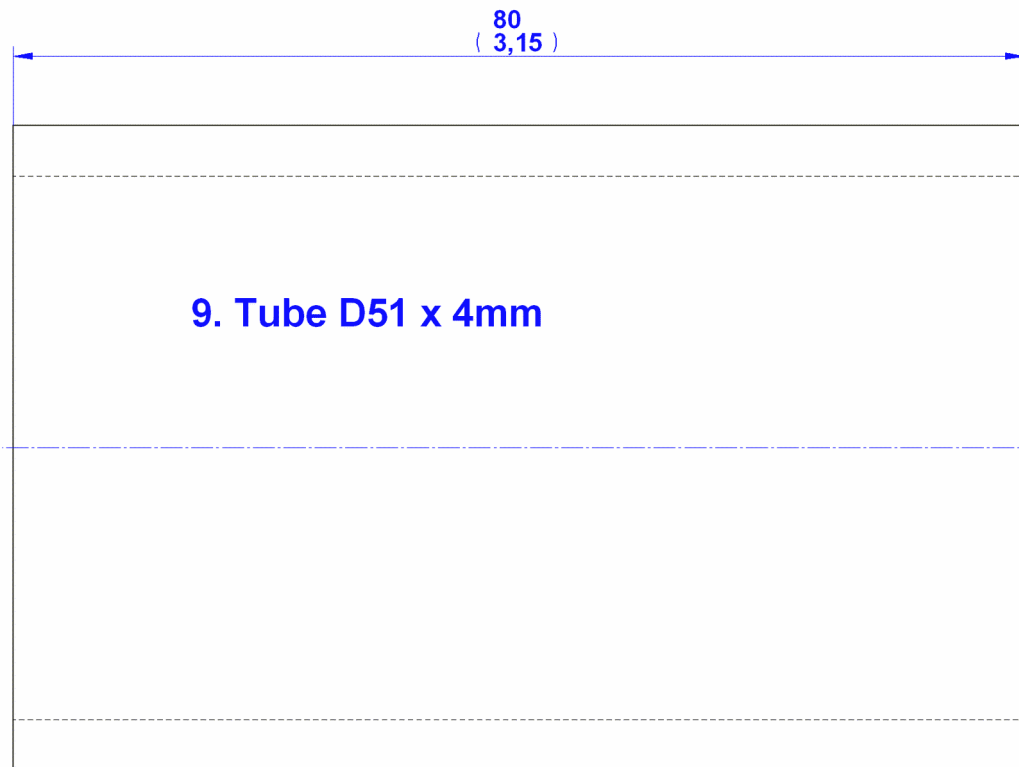


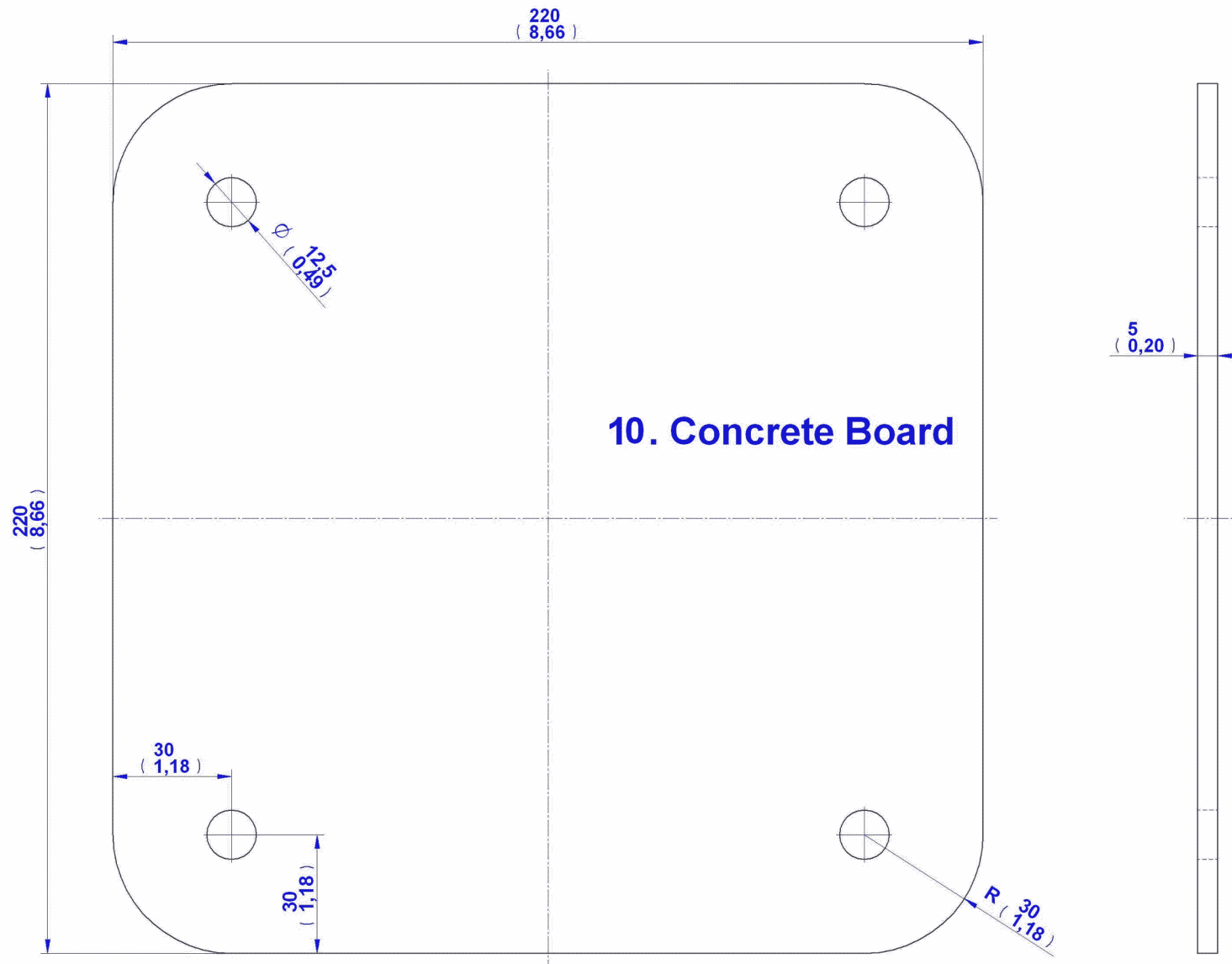


## 4. Concrete

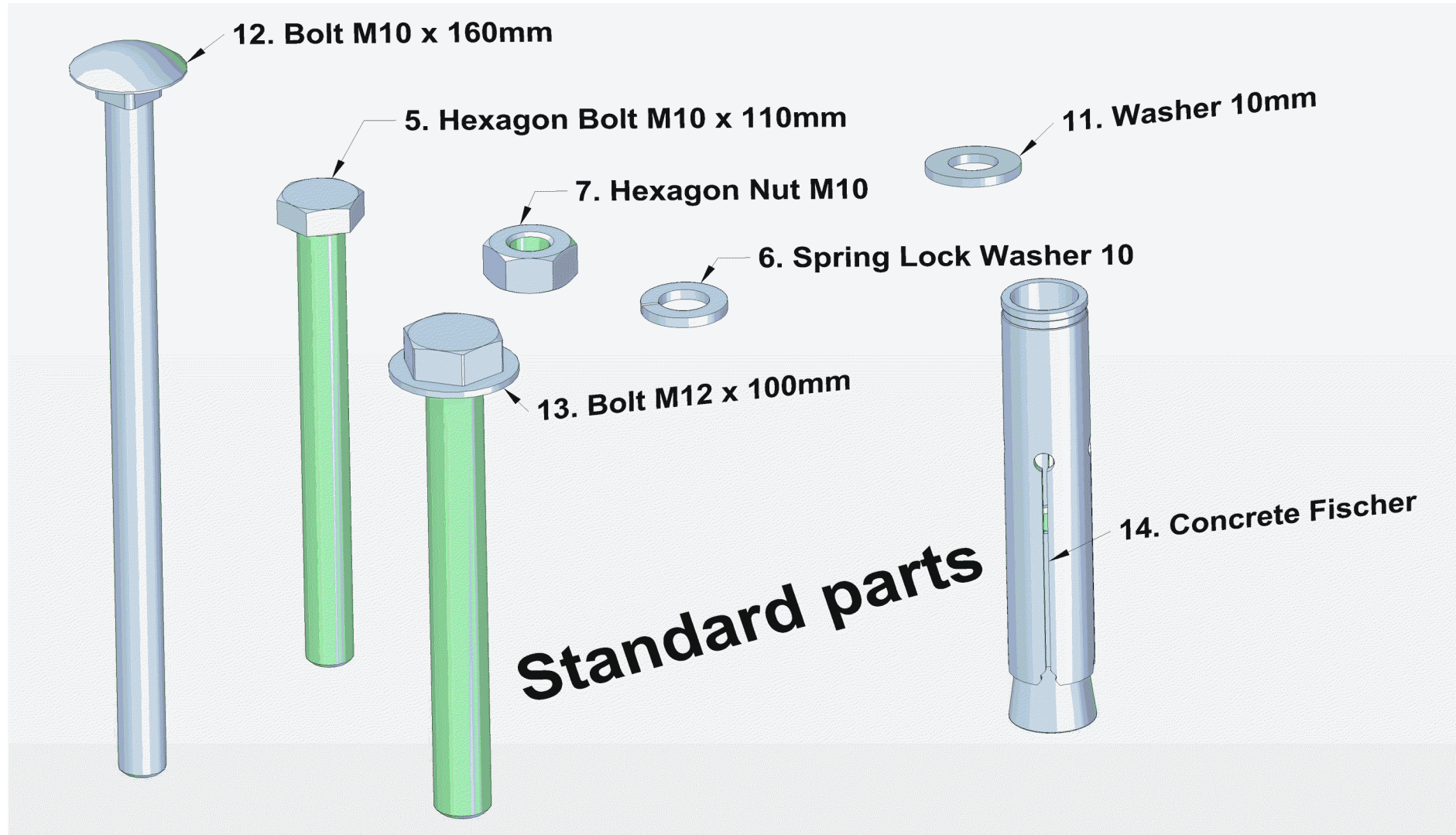
# 8. Pillar Holder







### Standard Parts

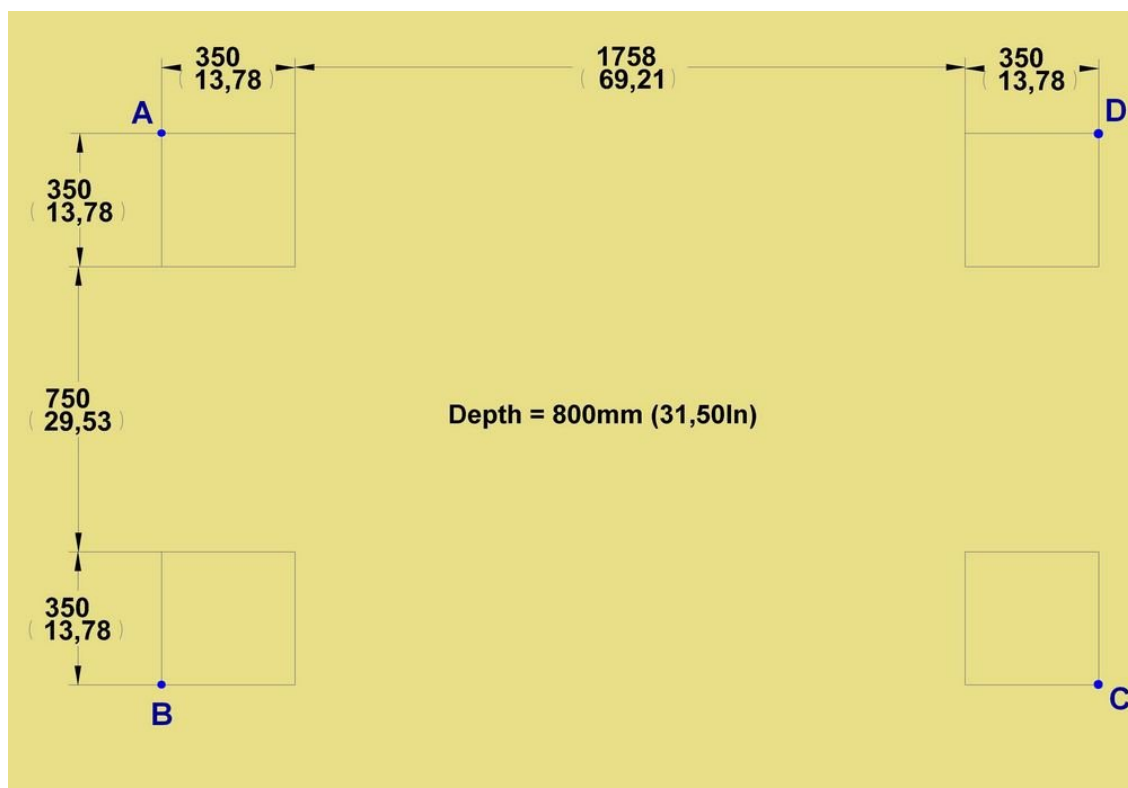


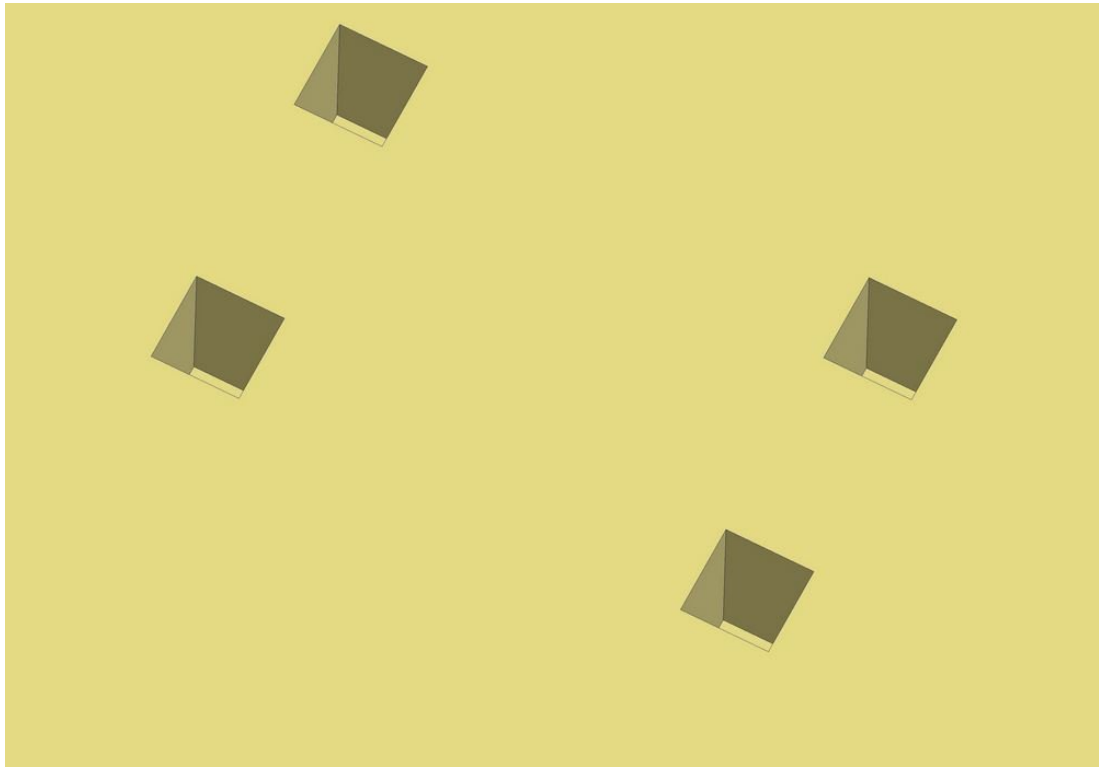
Outdoor objects such as gazebos, porches, arbors, and pergolas require strong basic foundation called footing. This concrete foundation fortify the arbor and protects the wooden parts of the arbor from direct contact with the earth. Posts and beams that come in direct contact with the earth rot more quickly and ultimately weakens the structure.

**Many municipalities have code regulations on footings depth and width, type, and fill material. When building an outdoor structure, it is best to check with a contractor or the building inspector in your municipality regarding building codes.**

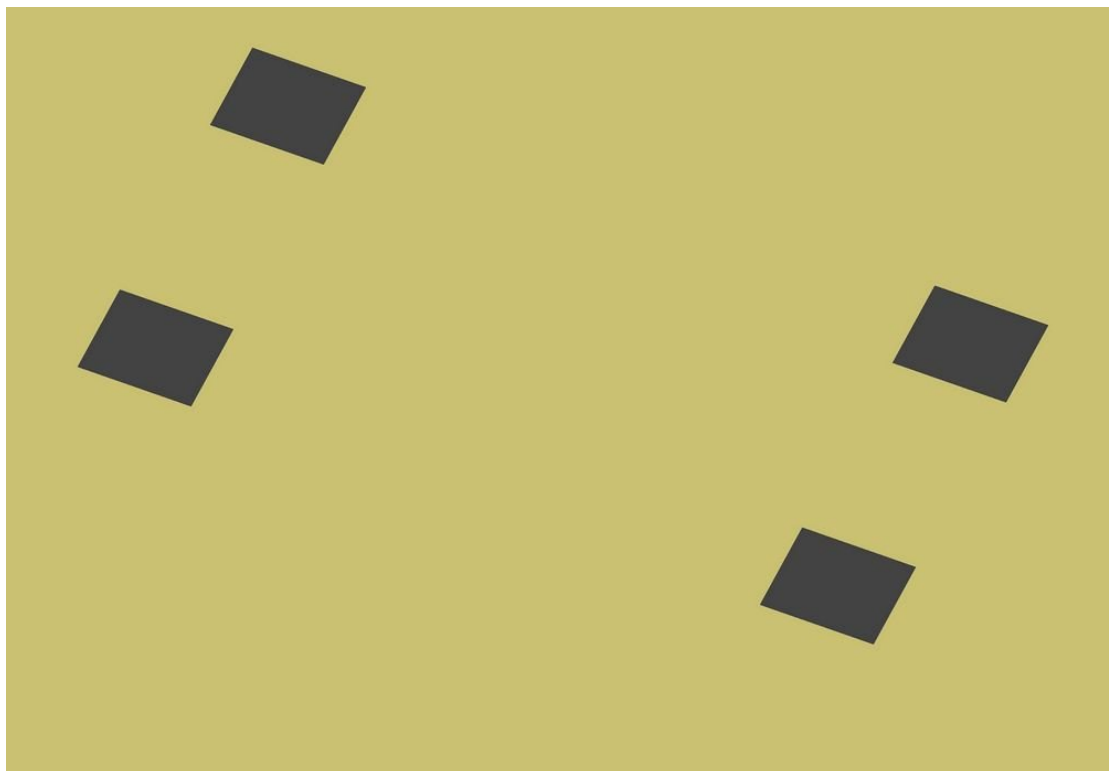
You can use various types of wood, but we recommend Redwood, Cedar, Cypress, Pressure-Treated Wood, Tropical Hardwood

1. Choose the site where you would like to build the Arbor, consider its relationship to the house and yard and the sun's path, so it will serve as a wonderful protection from the afternoon sun. The overhead structure should be softened and blended into the landscape with plants for the best effect and carefree moments.
2. Carefully measure and mark the areas where the posts are to be positioned. Dig the holes, dimensions 350mm(13,78in) x 350mm(13,78in) x 800mm(31,5in). To check your rectangle, measure the distance from one corner (A) to the opposite corner (C). Then measure the distance from corner B to corner D. The distance from A to C should equal the distance from B to D.. It is important that the posts are positioned below the frost line to ensure the structure will not heave with freezing. Each municipality sets standards for these depths. Check with the municipality in your area for the minimum requirements.

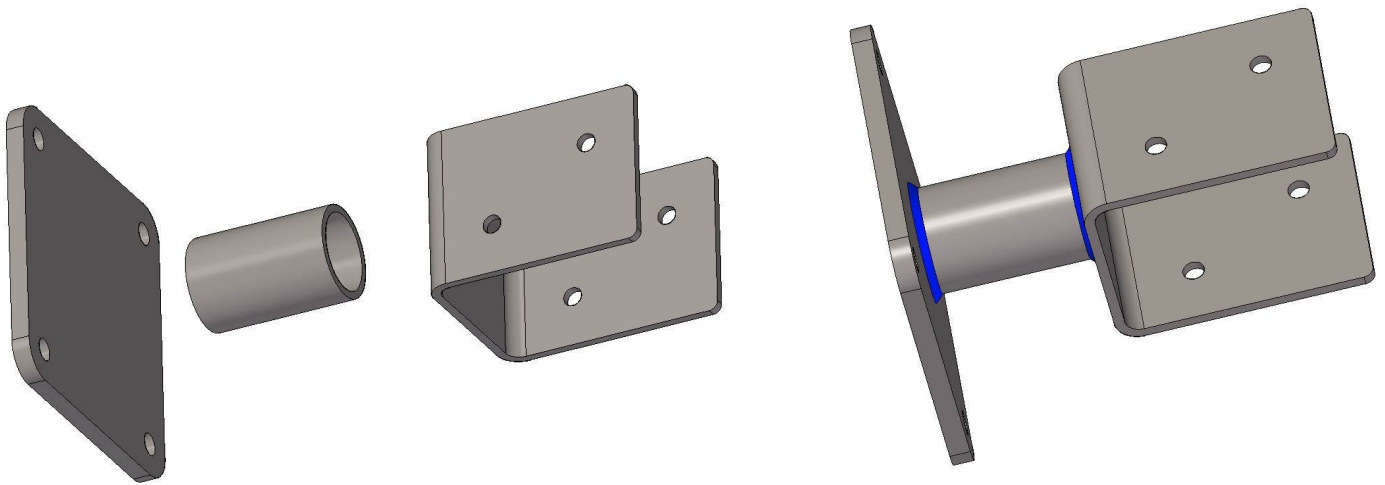




3. Fill the holes with concrete and wait 2 – 3 days, until the footings tighten. If the weather outside is hot, sprinkle it every few hours with water, so it will not become crackled.

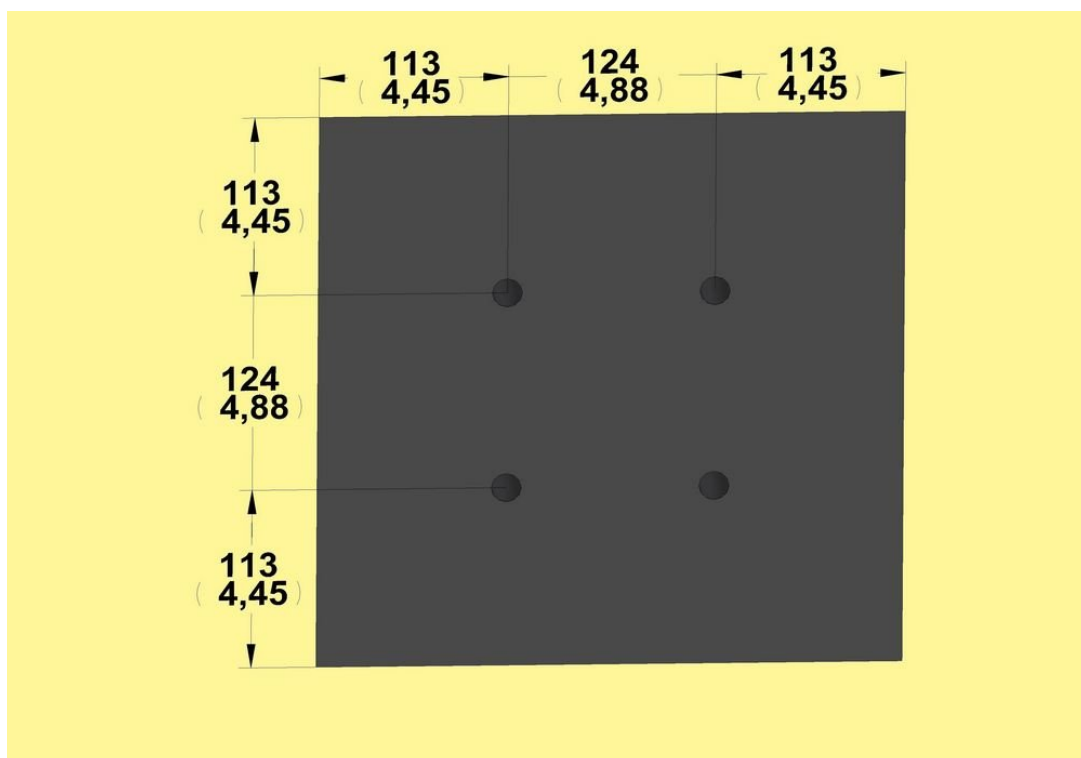


4. You can use these few days while you wait, to make subassembly, on which the column will stand. Weld the Pilar holder (part 8), Tube D51 x 4mm (part 9) and Concrete board (part 10) together.

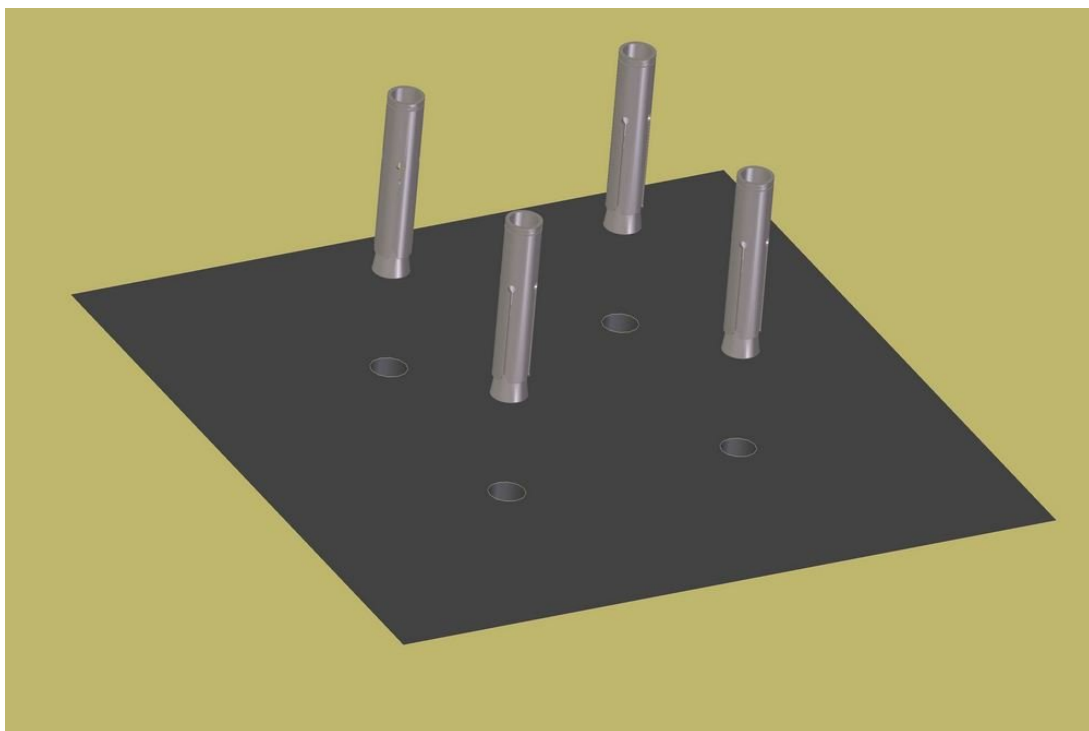
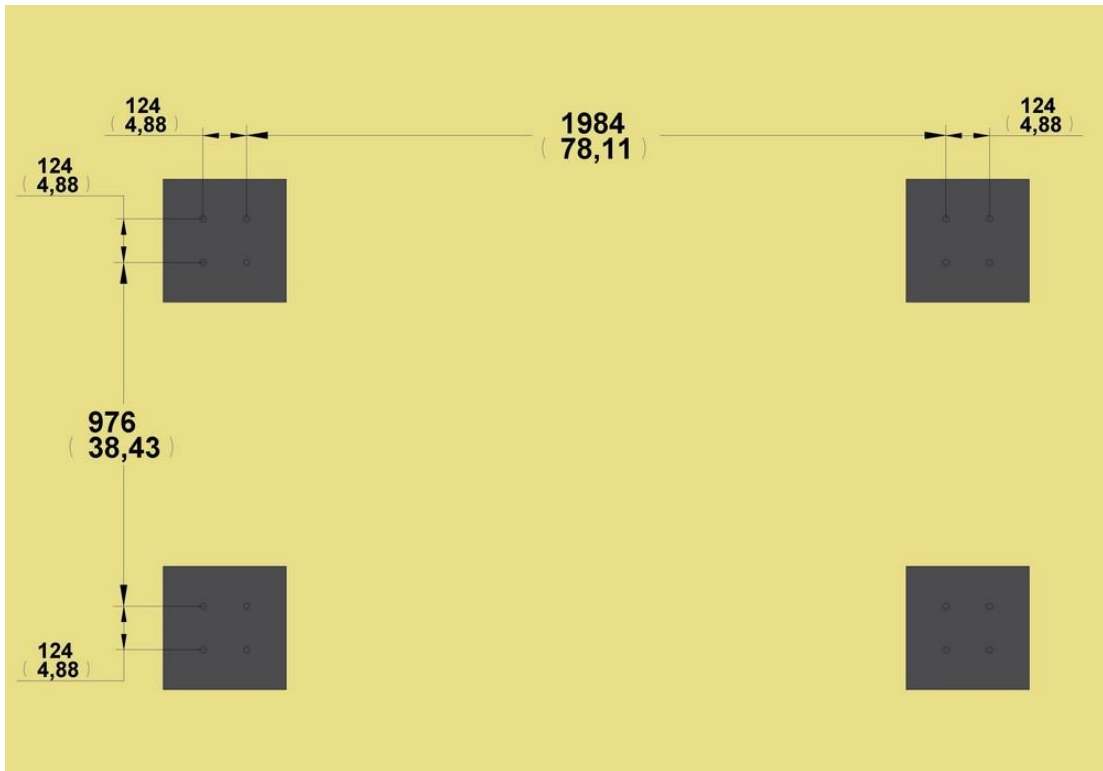


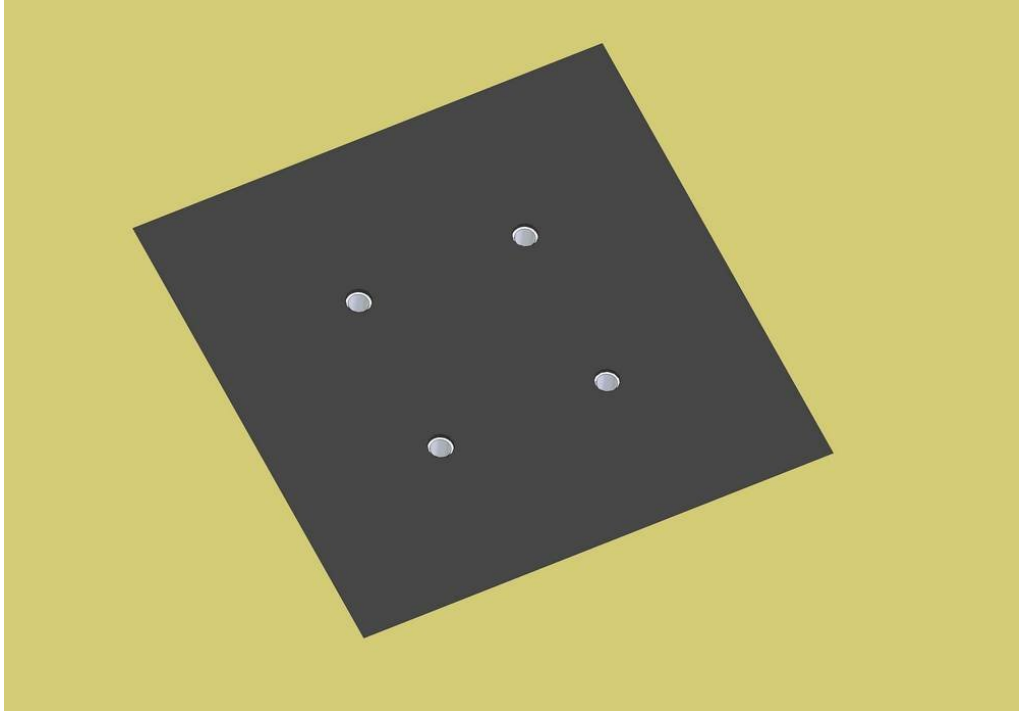
Make four of these subassemblies.

5. When footings are tighten enough, drill the holes in it. You should do this step very carefully, because of it depends the whole installation impeccability of the wooden parts. Take a good look of 2D documentation and follow instructions to draw the position of the Concrete Board (part 10) on each footing. Put the subassemblies made in step 4 on marked place and then mark the holes also. Drill these holes vertically and put the Concrete Fishers (part 14) in it.

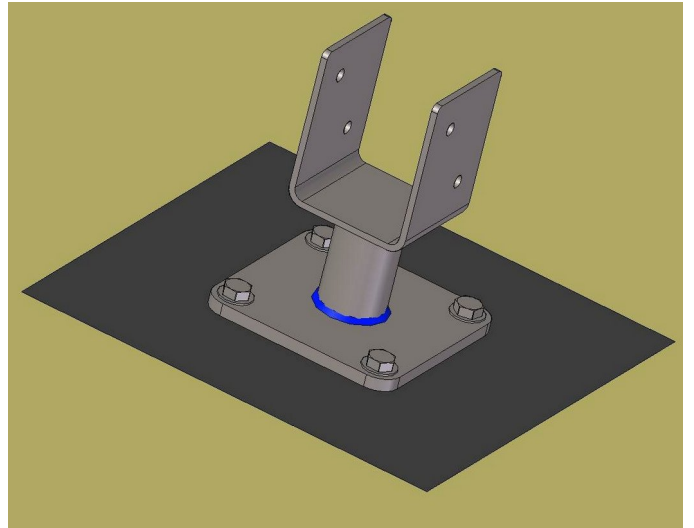
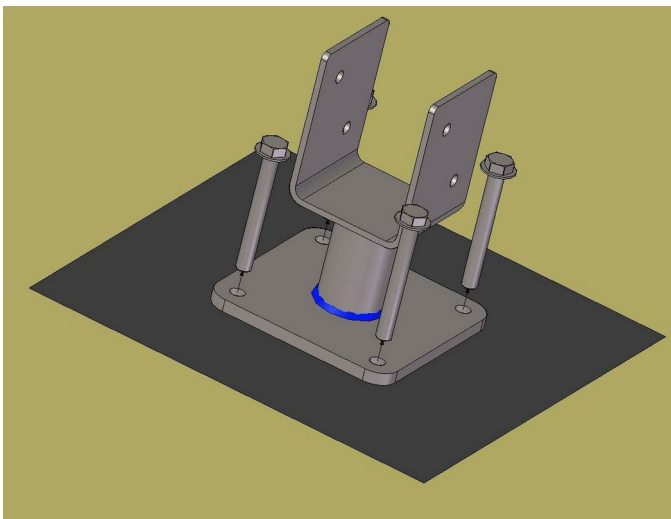
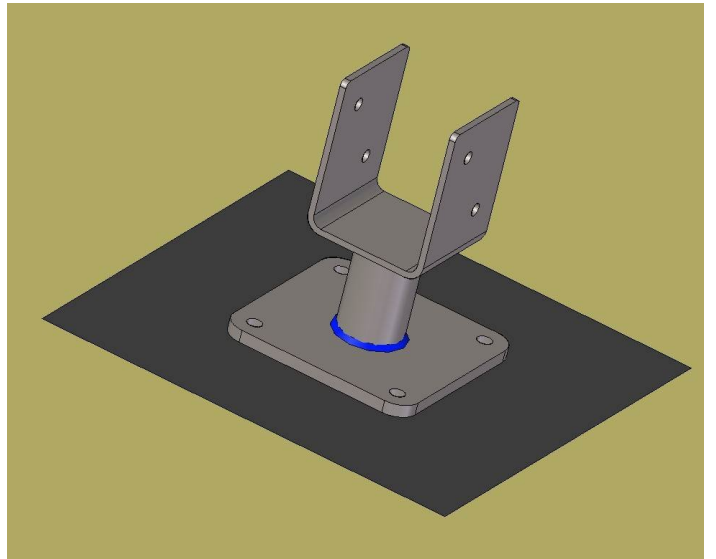
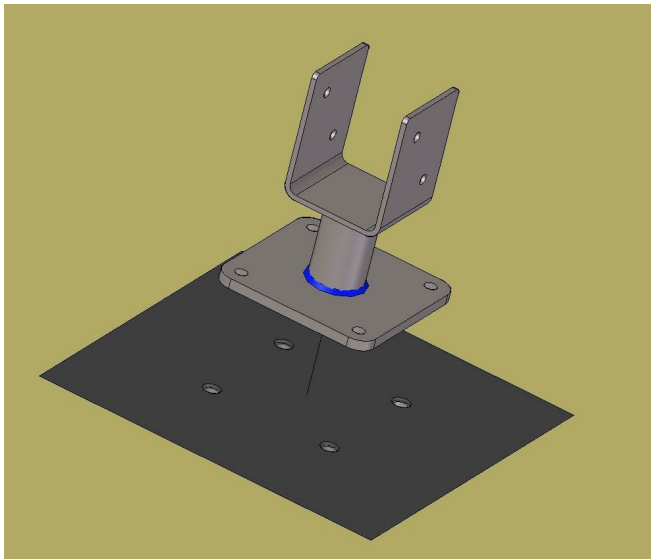


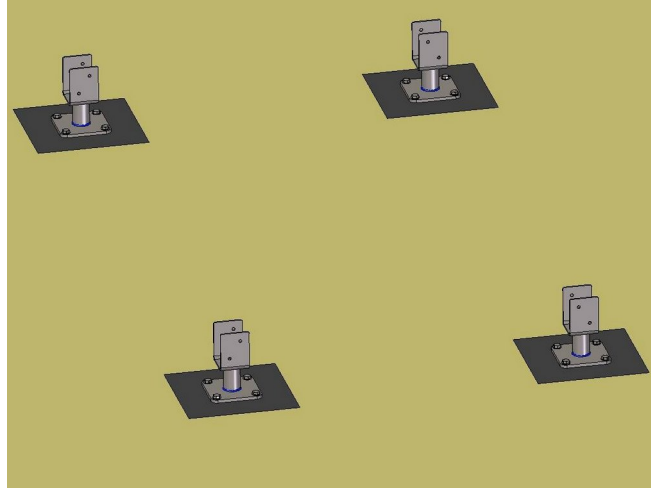




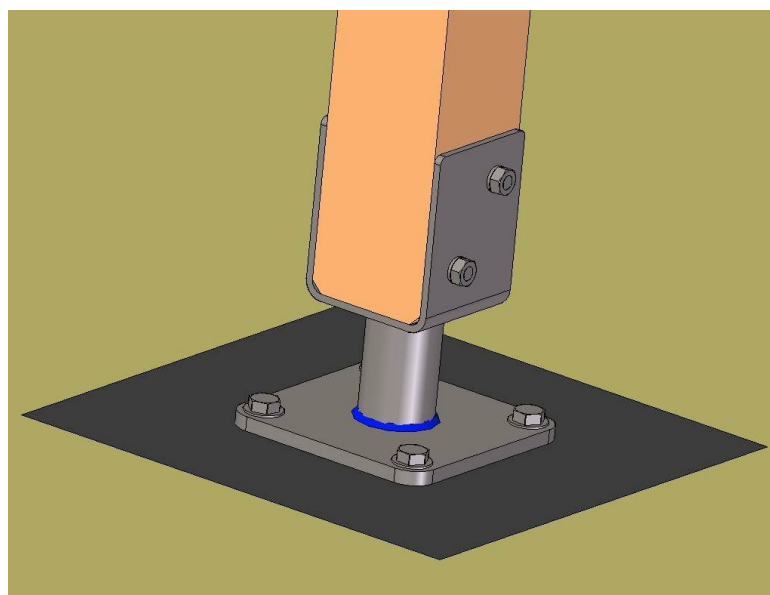
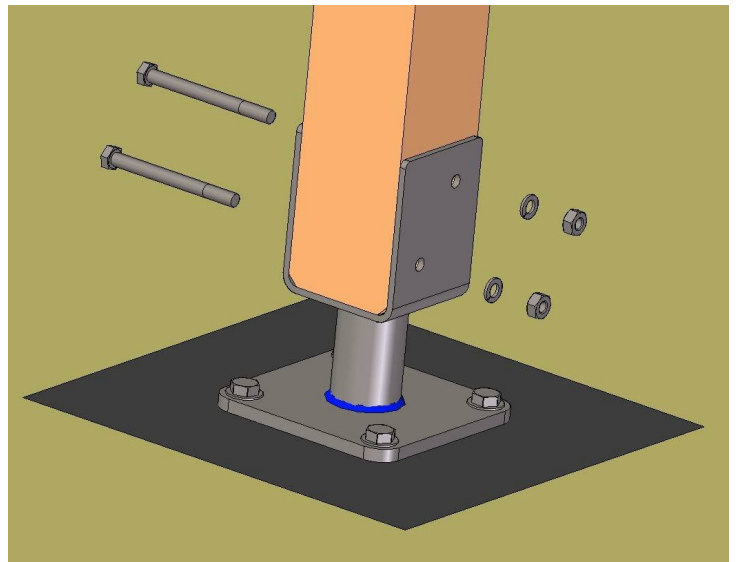
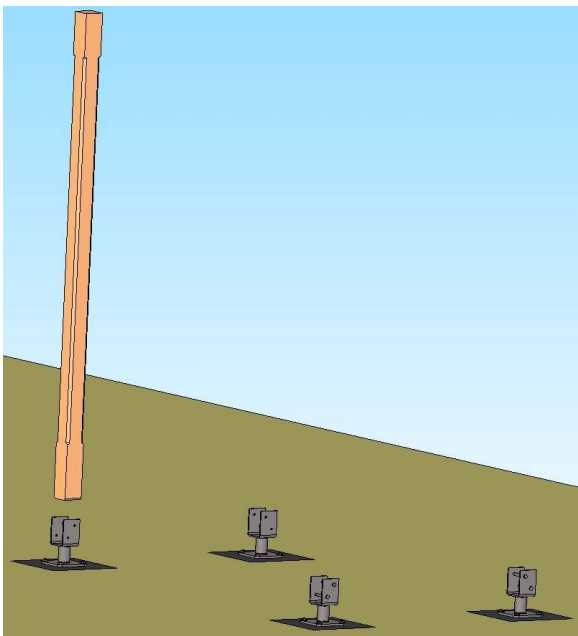


6. Fasten the subassemblies from step 4 to the each footings using Bolts M12 x 100mm (part 13).

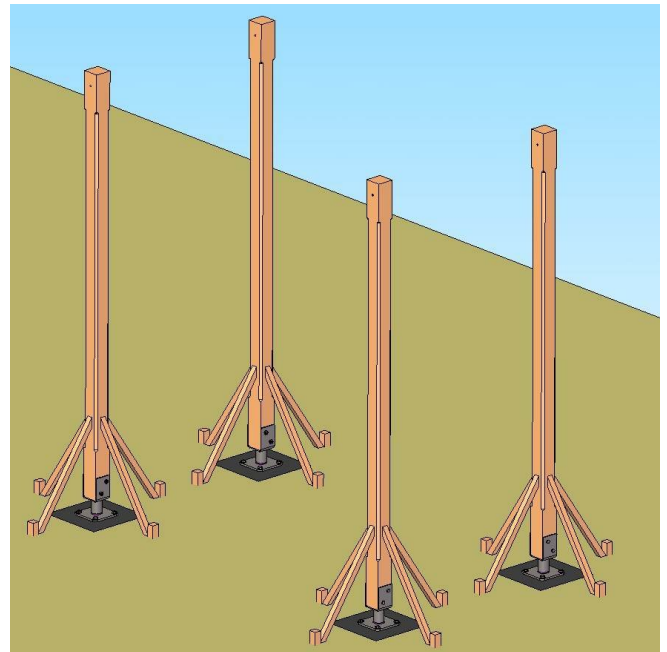
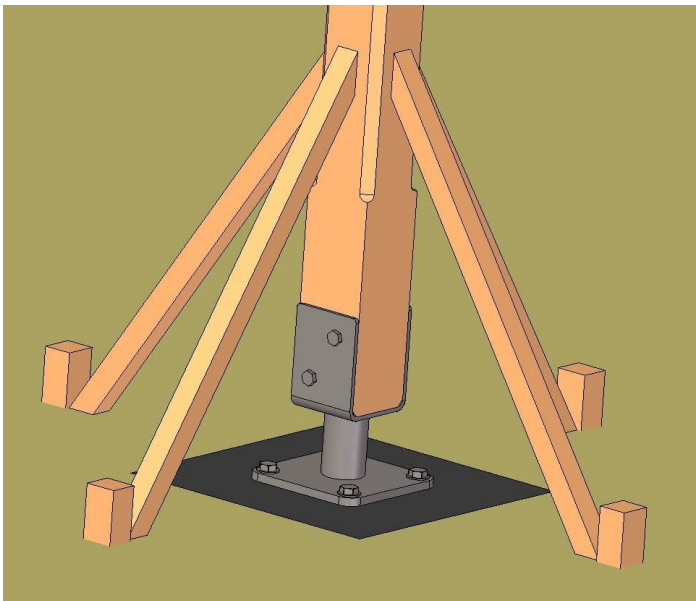




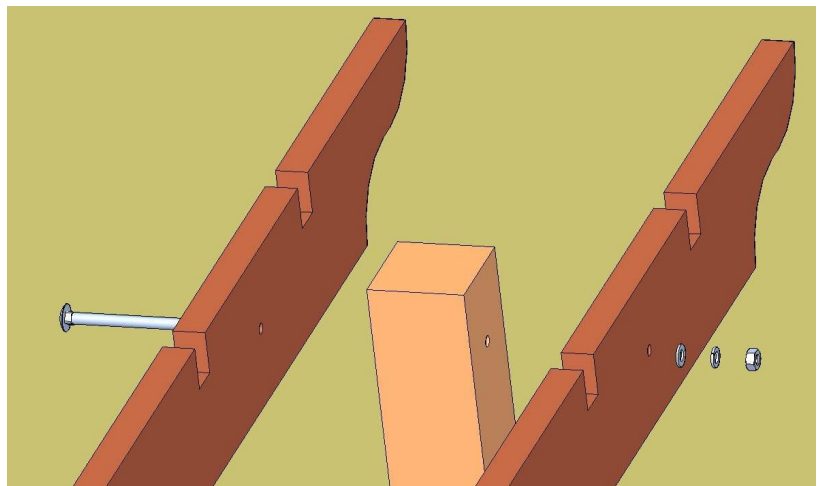
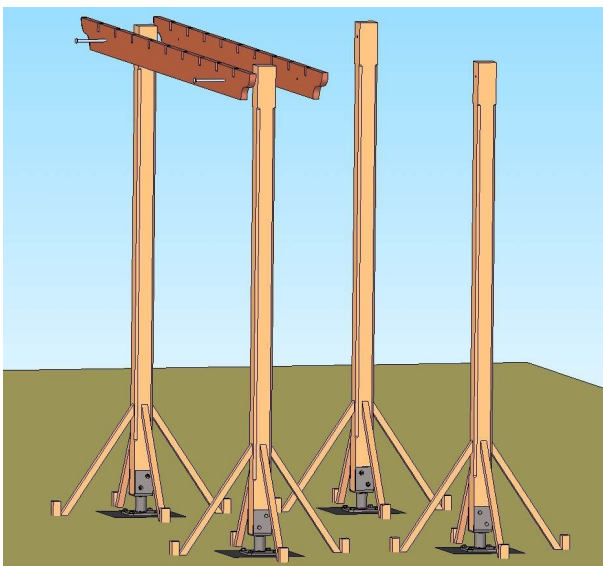
- Put the Pillars (part 3) on the subassemblies from step 4 and mark the holes on it. Then drill the holes and fasten it using Bolts M10 x 110mm (part 5), Spring Lock Washers M10 (part 6) and Hexagon Nuts M10 (part 7).

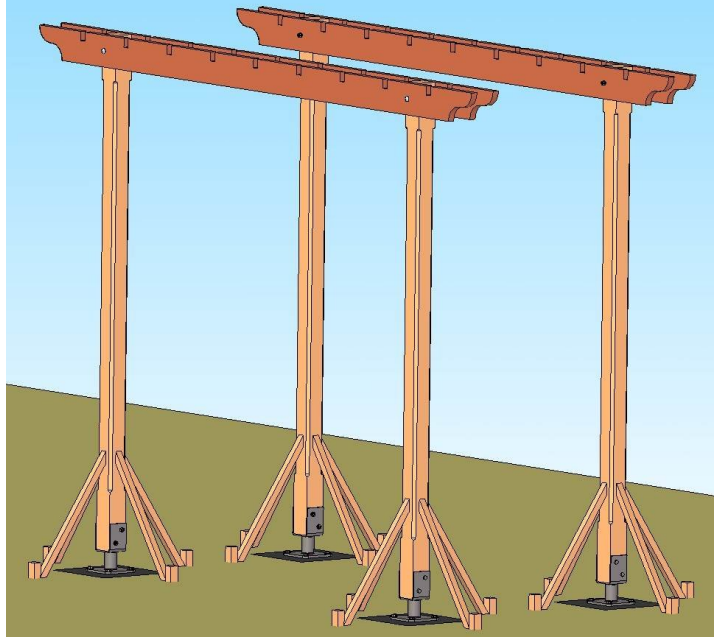
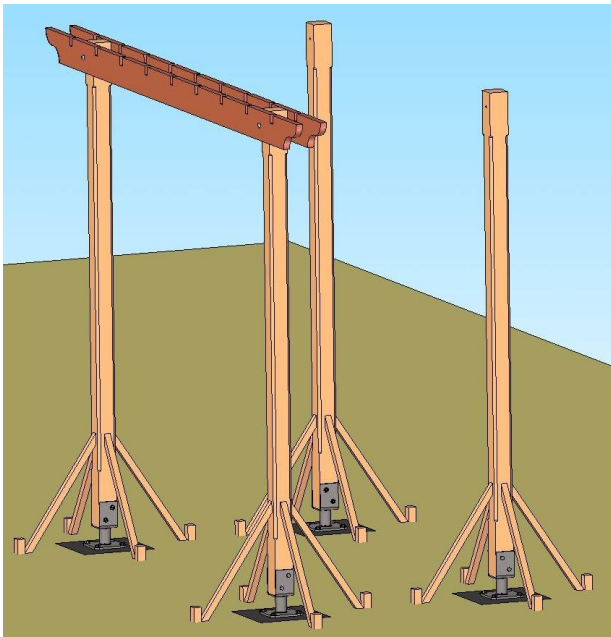


8. Use a level on four adjacent sides to check that each post is vertical. Secure it in position with temporary braces nailed to wooden stakes that are driven into the ground.

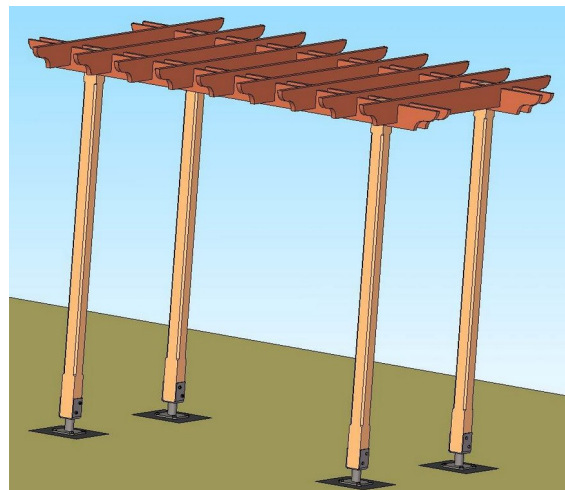
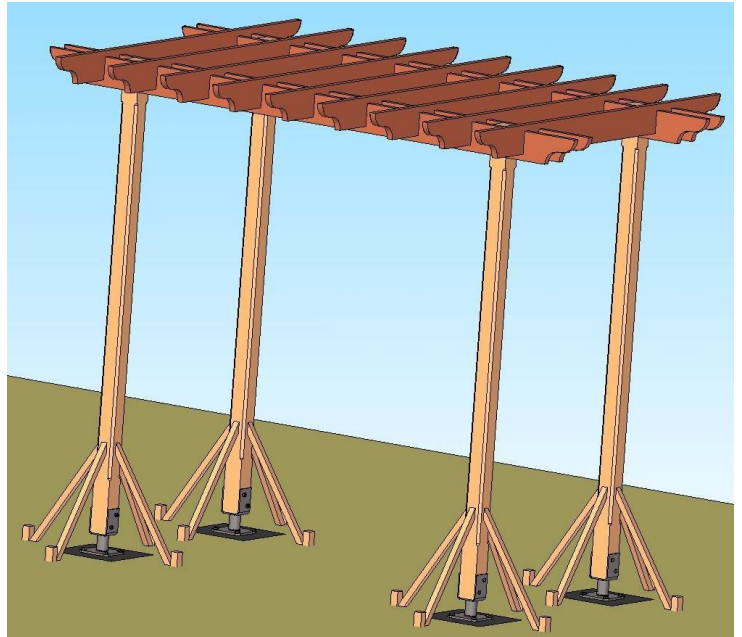
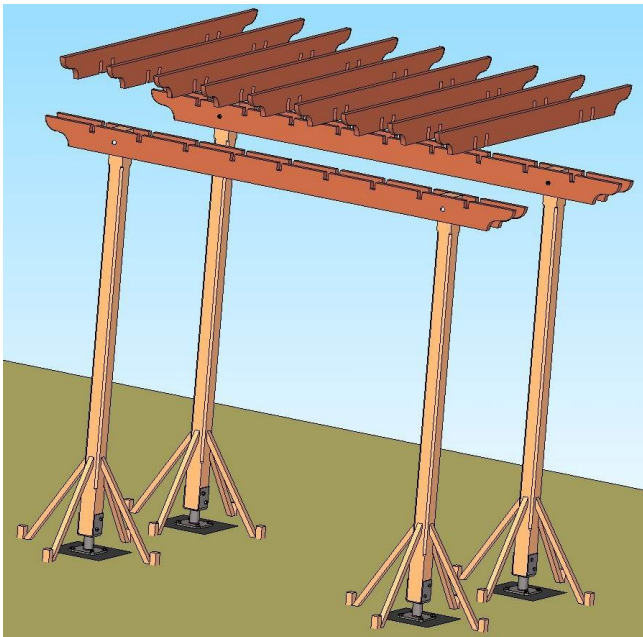


9. Lean the Long Top Rails (part 1) on this construction and drill the holes through the Long Top Rails (part 1) and the Pillars (part 3). Fasten the Long Top Rails (part 1) to the Pillars (part 3) using: Bolts M10 x 160mm (part 12), Washers 10mm (part 11), Spring Lock Washers M10 (part 6) and Hexagon Nuts M10 (part 10).



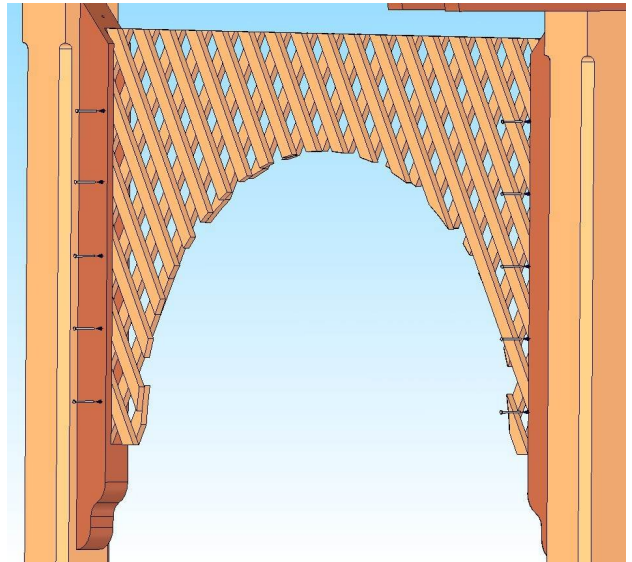
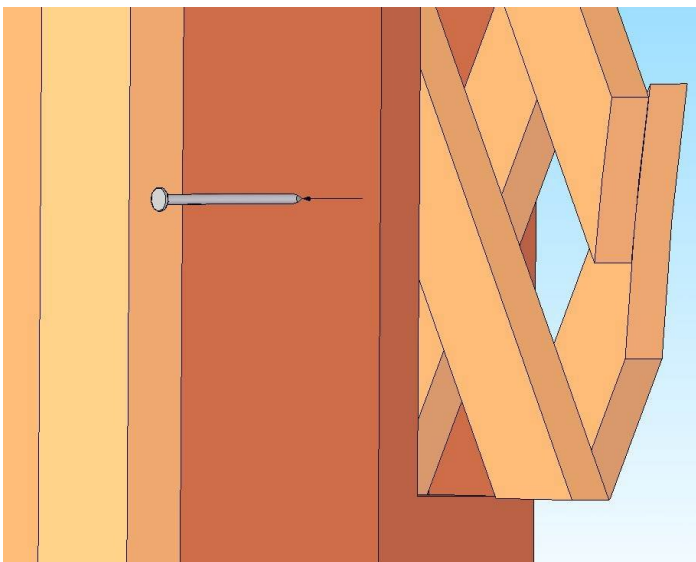
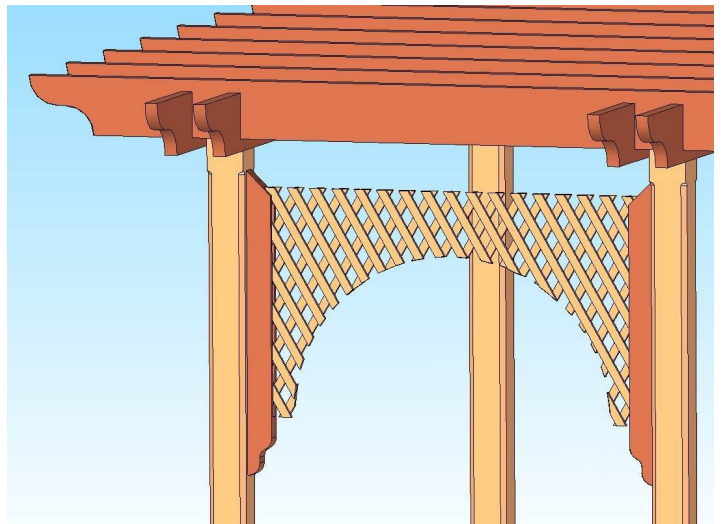
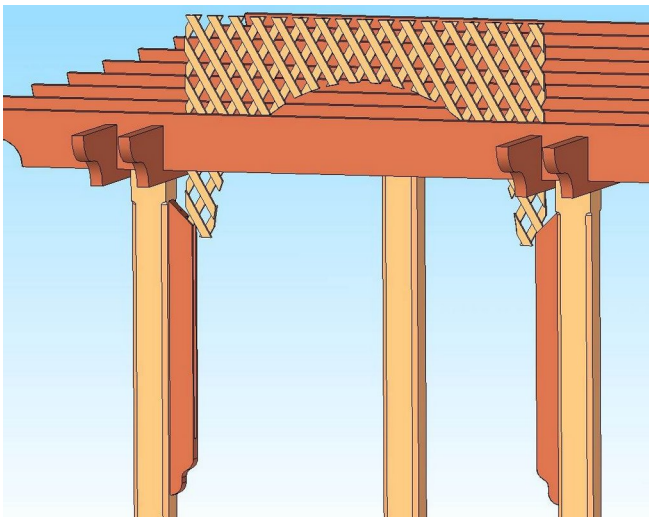
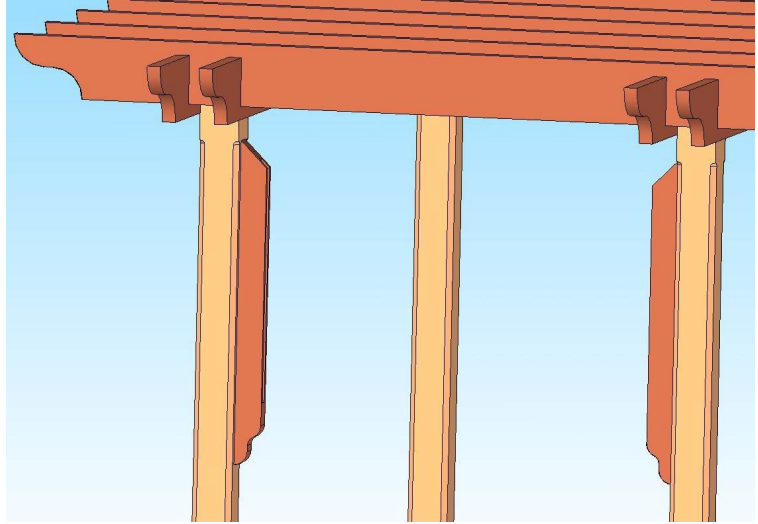
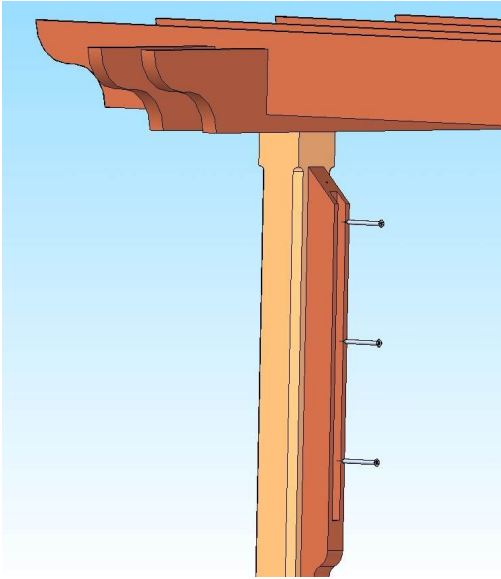


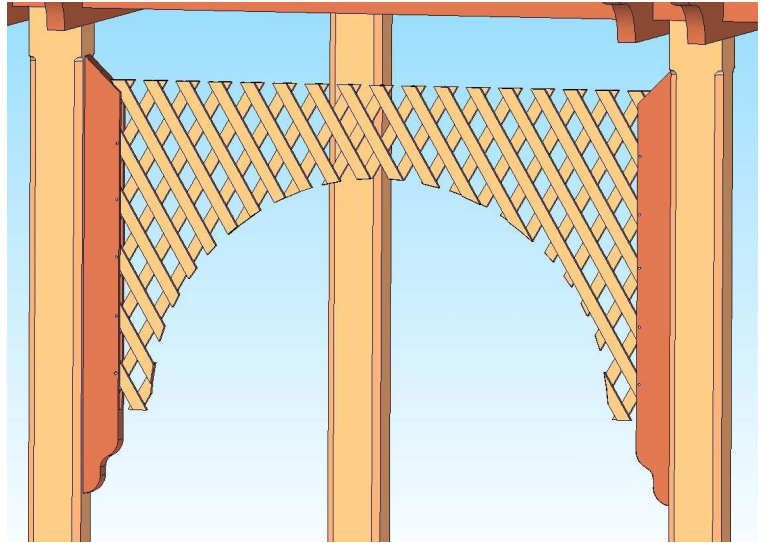
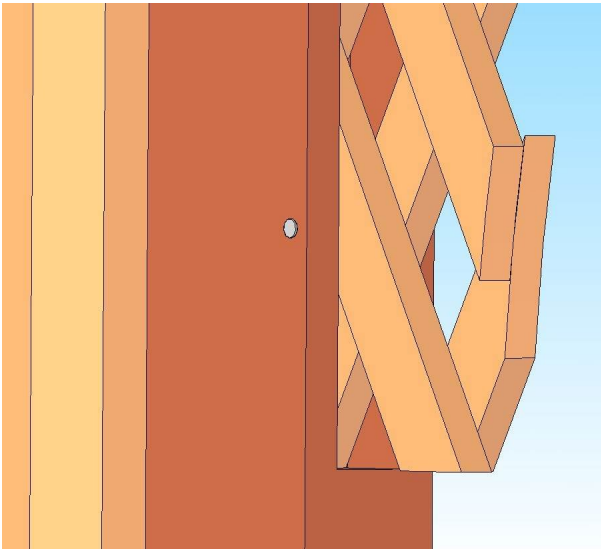
10. On this construction put the Short Top Rails (part 2).



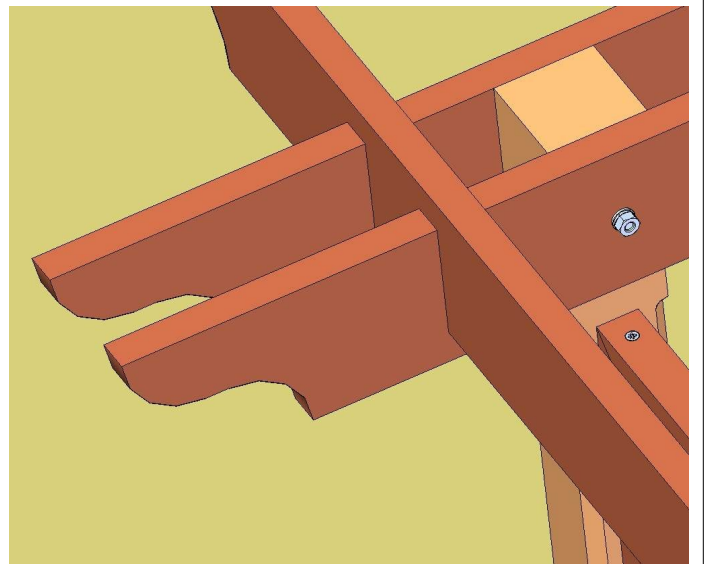
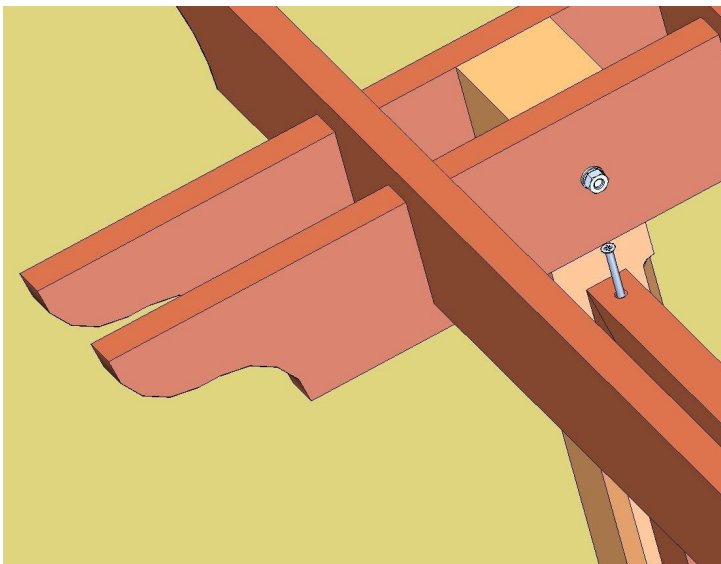
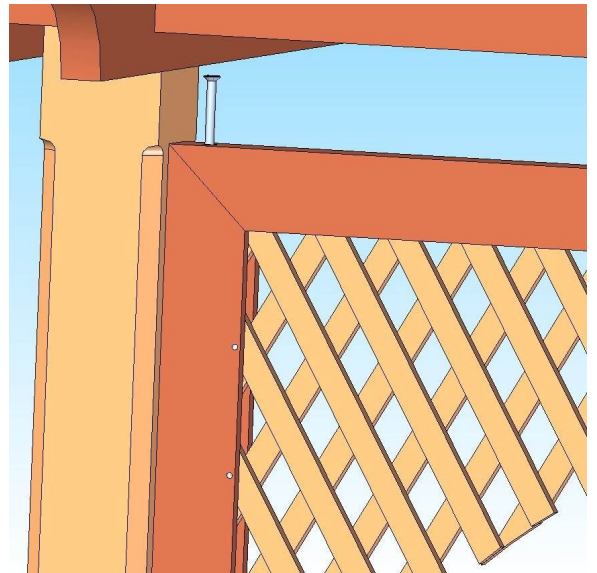
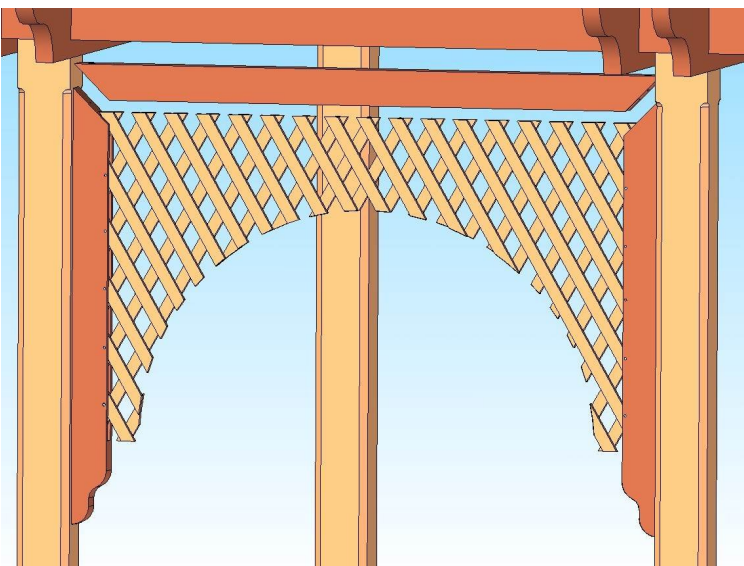
### Lattice assemblage

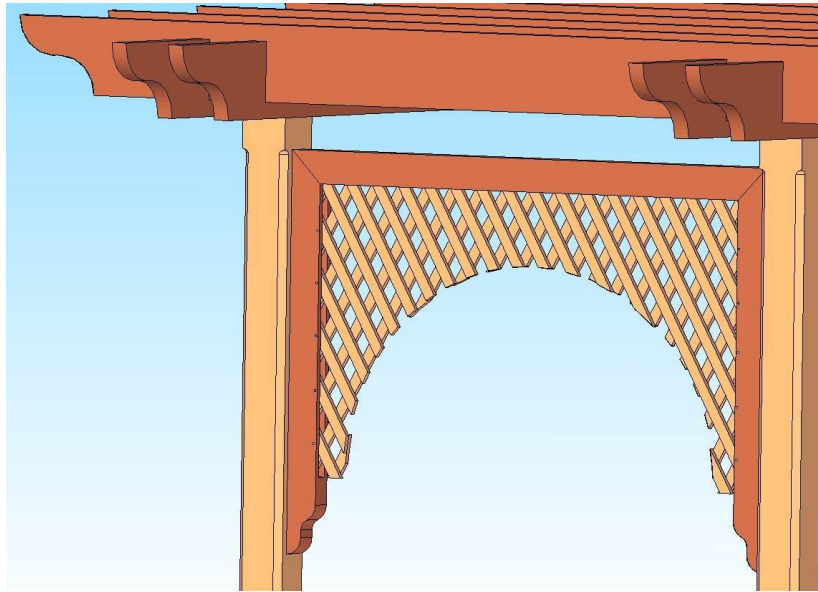
11.





12.





13.

