WOOD'S SHOP
CREATIVE BUILDERS

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Materials List Etc. for 10' x 10' Draped Azumaya

MATERIALS LIST-
Beams 4x10 4-10'
Posts 4-6x8 x12' if in-ground, or 8' if going on top of concrete footings on grade.
Ridge 2-2x10 x10', 2-2x8x10'
Rafters-
Long Commons 2x12 6-9'
Short Commons 2x10 6-7'
Jacks 2x10 8-6'
Hips 2x12 4-9'
Blocking- 2x8 40', 2x6 30', 2x4 56'
Gable Ties 2x6 3-6',
Collar Ties 2x4 1-6'
Webs 2x8 1-10'
*** I've orientated the Short Commons and Jacks on the boards with different plumb cuts so that you can use 2x10" stock for these instead of 2x12" stock as for the Long Commons, hence the reason for the different plumb cuts.**

2x6 T&G Sheathing (5" exposure)
8-16'
12-14'
12-12'
12-10'
14-8'
20-6'
*** Roofing (and sheathing) is 270 square feet (order more for waste), and you need 34' of Hip Caps.**

These curved/draped Rafters each have individual curves and are shaped so that you don't have to make Backing Cuts (bevel the top edges) to get the sheathing to plane in, in effect all the rafters are "dropped" but after you've set your Rafters and blocking, you should use a faring (sanding) block, and fare out all the rafter tops a little bit, running the block back and forth down along the curves that the sheathing will want to bend to, so that the sheathing will lay flatter on the Rafters low-side edges. Pay special attention to the Hips,

but don't take off too much material. It's the same principal as when you use a faring block to fare out the ribs of a ship.

Faring Block- Vertical grain stock closely spaced growth rings is best. You want wood that bends well. I had some nice old growth W.R. cedar that worked very well. I planed it down to 3/8" thick, then made it 3" wide x 4' 6" long. Get a 60" long x 6" wide 36 grit sanding belt, tear off an edge all the way in, and cut it to length. Fold it over the edge tightly, tape it with duct tape, then use some 3/8" staples to further secure it. See us using a faring block 12th row of pics on this Page
http://woodsshop.com/Kits/Double-Curve/DCurve.htm

Because the draped roof has a compound curve, when you bend your 1st outboard course of roof sheathing down to the rafters, it won't overhang past each rafter evenly. It will overhang more at the end rafters then at center rafter. See pics 34 and 35, on This Page
http://woodsshop.com/Kits/Double-Curve/DCurve.htm
You see that, once bent down, the sheathing overhangs the center rafter only 1/8" while at the end rafters the overhang is over 1". I'm not sure how the overhang will be with your 10'x10'.

When we bend sheathing down into a curve we have to be aware of all the tension we're putting onto the tops of the rafters, wanting to pull them upwards. When we sheathed this Draped Roof (with 1x4 clear cedar), this reverse tension actually pulled and bowed the two main beams and ridge beam upward a good 3/4" over 8'! See the bow in This Pic. Those beams are 3" x 4.5", yours will be 4x10 at least, and that roof has more of a drape over a shorter distance then yours does, so your beams should bow a lot less. Use #10 stainless steel screws for fastening sheathing.

2x6 sheathing will be too thick I think to bend down to the curve, way too much tension. I suggest you use skip sheathing, spaced rough sawn 1x4 a full 7/8" thick (so your roofing nails won't poke thru). Regular 3/4 x 3.5" will work too just be careful when nailing the shingles. From underneath very pleasing to see all the cedar shingles. Here is some 1x4 skip sheathing being used on my azumayas
http://woodsshop.com/Azumaya/16x20/16x20.htm
http://woodsshop.com/Azumaya/12x12Curved-Cash/12x12Curved.htm