CVE 322 – Steel Design  
Spring Semester, 2015  
Homework Assignment #3

Design a *double angle* section for the lower chord of the scissors truss depicted below. Allow for a double row of bolt holes in the larger leg. The smaller leg of the double angle used for the lower chord does not have bolts. Finally, assume no fewer than 3 bolts per line in the direction of the load. Use ASD.

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Snow Load + Roof Live Load = 25 psf  
Clay tile roof @ 9 psf  
¼ inch plywood sheathing @ 1 psf  
Estimate rafters & purlins @ 5 psf  
Estimate truss @ 5 psf  
Bay spacing = 13.5 ft  
Consult AISC Table 2-4 (page 2-48) for appropriate grades of steel  
¾” A 325 Bolts  
3/8” Thick Gusset Plate