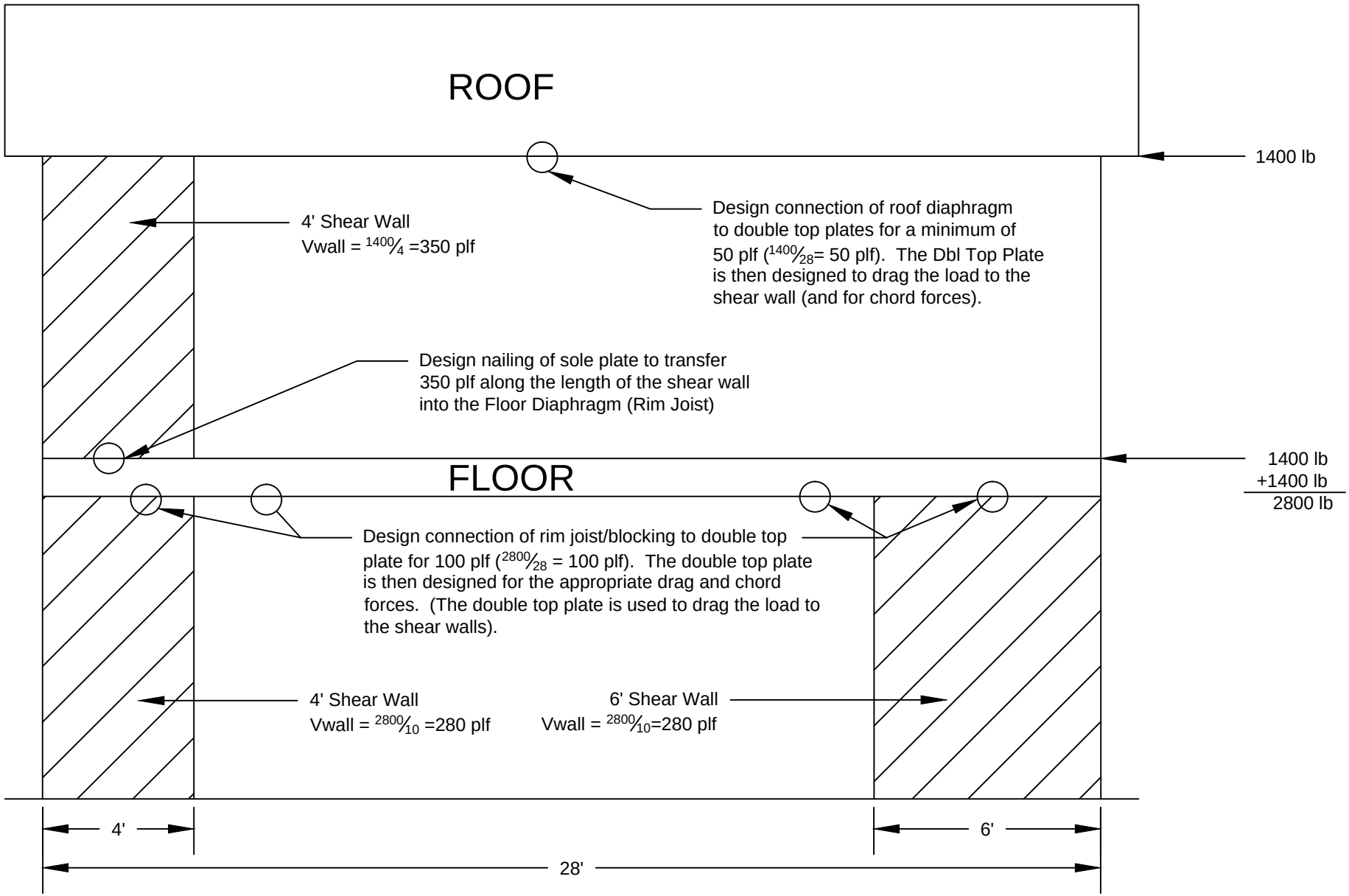
ROOF
1400 lb
Design connection of roof diaphragm to double top plates for a minimum of 50 plf (1400/28= 50 plf). The Dbl Top Plate is then designed to drag the load to the shear wall (and for chord forces).
4' Shear Wall
Vwall = 1400/4 =350 plf
Design nailing of sole plate to transfer 350 plf along the length of the shear wall into the Floor Diaphragm (Rim Joist)
FLOOR
1400 lb
+1400 lb
2800 lb
Design connection of rim joist/blocking to double top plate for 100 plf (2800/28 = 100 plf). The double top plate is then designed for the appropriate drag and chord forces. (The double top plate is used to drag the load to the shear walls).
4' Shear Wall
Vwall = 2800/10 =280 plf
6' Shear Wall
Vwall = 2800/10=280 plf
4'
6'
28'