

The Brooke Sign Calculations

Sign Size			
Height	8.33	feet	
Length	3	feet	
Total Area of Sign	25	sqft	
Wind Load on Sign	115	mph	Exposure B
Wind Load converted to PSF	35	psf	
Weight of Sign	375	pounds	
Total Wind Load on Sign	875	pounds	
Wind Load is resisted by six 1/2" Grade 5 bolts			
Wind Load per Bolt	146	pounds	
Shear Strength of one 1/2" Diameter Bolt	12100	pounds	
Tensile Strength of one 1/2" Diameter Bolt	17000	pounds	
Shear Strength of 6 Grade 5 Bolts	72600	pounds	
Tensile Strength of 6 Grade 5 Bolts	102000	pounds	

Both Shear and Tensile Strength of Grade 5 Bolts exceeds applied load and will support the sign

