



Global Flags Unlimited, LLC.

Call: 800-962-0956 Fax: 770-974-0793

Address: 3600 Cantrell Industrial Ct, Acworth, GA 30101

k-dc kaydos-daniels engineers, pllc

April 17, 2006

Attn:

Re: Fiberglass Flagpoles - Wind Load Certification

Dear :

In reference to the subject project, I have performed structural analyses on fiberglass flagpoles of varying heights and dimensions with respect to maximum allowable wind load capacity. The poles consist of fiberglass layers and resin filler material of varying quantities and thicknesses. A summary of the results is as follows:

Height (ft)	Base Ø (in)	Top Ø (in)	(1) Thickness (in)	(2) (3) Max. Wind Unflagged (mph)	Flag Size (ft x ft)	(2) (3) Max. Wind Flagged (mph)
20	4.1875	2.7500	0.1150	213	3 x 5	168
25	4.5000	2.7500	0.1450	193	4 x 6	150
30	4.8750	2.7500	0.1600	174	5 x 8	131
35	5.2500	2.7500	0.1750	160	6 x 10	118
40	5.6667	2.7500	0.1700	143	6 x 10	110

Notes:

- (1) Wall thickness varies due to layered manufacturing process. Value shown is the minimum wall thickness of a sample at the base (controlling section), and is used for analysis.
- (2) Maximum wind capacity is based on material properties provided by AOC mechanical testing report dated 11/11/2005.
- (3) Maximum wind capacity is based on structural strength of pole to resist bending failure only. Maximum deflection criteria were not considered. Furthermore, pole foundation supports were not evaluated as part of this analysis. Factor of safety against bending failure is 1.25.

I hereby certify that the flagpole wind capacities meet or exceed the tabulated Maximum Wind values shown in the above table.

Kaydos-Daniels Engineers appreciates the opportunity to provide this Wind Load Certification for your use. Please do not hesitate to contact me if you have any questions, or if I may be of further assistance regarding this matter.

Respectfully,

Kaydos-Daniels Engineers, PLLC

Richard Kaydos-Daniels, PE

