



PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS
250 East Broad Street • Suite 500 • Columbus, Ohio 43215

May 22, 2002

Crawford Broadcasting
2150 W. 29th Ave., Suite 300
Denver, Co 80211

Attn: Cris Alexander

Re: Existing 1245 ft guyed tower
Located in Cullman, AL
(PJF #A02-T60)

Dear Cris Alexander:

We have finished the structural analysis of the existing 1245 ft guyed tower located in Cullman, Alabama. As you know, the existing tower was originally manufactured by TSL in 1989. The structural analysis was performed to determine if the existing tower could safely support the existing antenna, new antenna and new 80 ft extension. We understand that the existing 80 ft pole is to be replaced with a new 80 ft extension consisting of Utility Tower sections. See the antenna listed on page 1 of the enclosed sketches for antenna types, mounts and coax distribution.

Our analysis was performed according to the recommendations of the Electronic Industries Association Standard ANSI/EIA-222 revision F 1996. The standard recommends a minimum design wind velocity of 70 mph for Cullman County. If ice accumulation is considered, then the EIA standard recommends a minimum design wind velocity of 61 mph with 1/2" of radial ice accumulation.

When the existing and new antenna loading is considered, the tower is overstressed by a maximum of 45 percent. This tower is not adequate to support the existing and the proposed new antenna loading without some modifications. Please refer to the spreadsheet attached with this letter for an itemized list of the overstressed tower components. Some of the calculated overstress is due to the fact that the tower was originally designed in accordance with the old EIA-RS-222-C standard. Today's EIA standard (revision F) is more stringent, especially on taller towers, than the old code in that wind pressures now escalate with tower height.

We do not have a site-specific geotechnical report on file, so we were unable to accurately verify the capacity of the existing foundation system. We did, however, compare our calculated base reactions to the original design reactions. The revised reactions are a smaller than the original design reactions, so assuming the original 1989 foundations were designed and installed properly, then they should be adequate to support the proposed antenna loading.

For the tower to meet minimum EIA standards, approximately 400 ft. of legs need reinforced. This can be achieved by adding additional horizontal bolt-on bracing to the tower face in the overstressed

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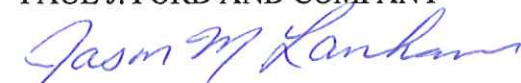
areas. Approximately 220 ft. of diagonals are undersized and will need replaced. Finally 20 ft. of horizontals will also need replaced.

The overstressed diagonal members are tension rods. We cannot overemphasize the dangers involved with replacing these members. Tension members are fabricated short by the manufacturer so that when installed a tension force exists in the member, even when there is no load/wind on the structure. Consequently, it is difficult to fabricate the proper diagonal working point length by field measurement only. If the diagonal rod is fabricated even a little too long, it may bow out of alignment and not perform as it was originally intended. Removal of these members may cause the tower structure to "relax", making it difficult to insert the new members. It is absolutely necessary that the contractor provide some type of temporary shaft bracing when replacing diagonals.

Paul J. Ford and Company can provide modification drawings. The drawings we will provide will not be fabrication drawings, but they will be of sufficient detail that a contractor can bid the job and order materials. The contractor may, however, have to take some field measurements to have some of the new steel fabricated. The additional fee for these additional drawings will be another \$1000.00 for a total of \$5000.00 for the entire project as previously quoted to you. We have designed the new Utility Tower sections for your use as shown on the enclosed S-1 sheet. We also intend to continue with the original scope of this project by designing the connection between the new tower sections and the existing tower. Since we have never received detailed field measurements of the existing conditions at the top of the tower where the existing pole attaches, we are really on hold at this point. We thought you would like to review all of this information and give us a call to discuss further options. We do not really want to proceed with the connection design until the antenna loading and extension geometry is finalized. We will also need to have you authorize the additional fee for the additional modification work.

Sincerely,

PAUL J. FORD AND COMPANY



Jason M. Lanham, E.I.T.
Project Engineer
e-mail: jlanham@pjfweb.com



Handwritten signature of Kevin P. Bauman in blue ink, with the date "5-22-2002" written below it.