

DAVIDSON SURVEYING & MAPPING, PC
4511 W. Old Hwy. 64
Lexington, N.C. 27295
(336) 787-4929

Antenna Orientation Certification

I, David A. Craver, PLS, hereby certify that the WUNW-FM directional antenna, a composite array of two (2) log periodic antennas, Shively Labs S/O number 31112, is oriented in accordance with the manufacturer's instructions and installation drawing. The tower section on which the antenna is mounted is oriented with a leg at 102 degrees True as specified on the antenna drawing. The antenna elements are oriented at 340 degrees and 125 degrees with respect to True North as shown on Figure 2, Drawing No. RAS92713.

Survey Based on GPS control and existing boundary markers compared to and verified by previous survey plats.

Instrumentation:

Topcon GTS-3C Electronic Total Station

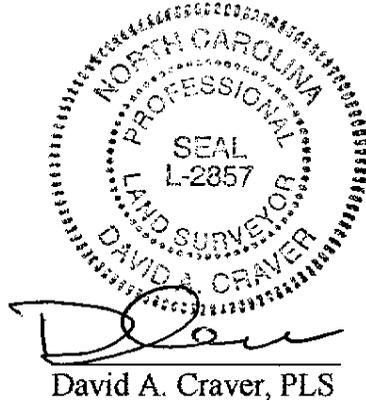
Accuracy of electronic angle measurement = 5 seconds

Accuracy of electronic distance measurement = +/- 0.005 feet

Trimble R8 GPS receiver for determining NAD 83/2011 Grid Azimuth

Theta angle = 0 degrees 41 minutes 37.31 seconds applied to determine True Azimuth

I am a Professional Land Surveyor licensed in the State of North Carolina



11-18-13
Date