

## COMMERCIAL COMMUNICATION TOWER TECHNICAL SUBMITTAL REQUIREMENTS

**General:** The following information is required at time of submittal. Incomplete applications will be considered insufficient.

### I. EMERGENCY 911 COMMUNICATION TOWERS (911/E911)

Does this tower support emergency (911) services?     Yes     No

### II. REQUIREMENTS FOR CELLULAR, PCS AND ESMR PROPONENTS

- [ ] 1. Maps showing all carriers predicted and/or measured coverage with and without the proposed facility. The existing coverage should be shown for all adjacent cell sites. The maps should also have a scale of distance and a legend clearly identifying the signal levels depicted and the propagation model used to produce them.
- [ ] 2. Link budgets (both base to portable and portable to base) clearly identifying the assumed losses and gains in both the transmit and receive paths.
- [ ] 3. The type of modulation/multiple access being used (i.e. analog AMPS, TDMA, CDMA).
- [ ] 4. The type and length of all transmission lines.
- [ ] 5. The ERP, make, model, and specifications for all base station antennas (both transmit and receive) including the horizontal and vertical antenna patterns and orientations for all sectors of all cells (both existing and proposed) requiring study.
- [ ] 6. The bases for any losses assumed for foliage, land use/land clutter and/or building penetration.
- [ ] 7. For all existing and proposed sites: ground elevations, geographic coordinates, overall tower heights and heights of antenna centerlines above ground level for all carriers for whom coverage evaluation is to be done.

### III. REQUIREMENTS FOR SMR OR OTHER GENERAL TWO-WAY RADIO SYSTEM PROPONENTS

- [ ] 1. Provide a propagation study for the proposed facility, and, if the proposed facility is a modification of an existing facility, provide a propagation study for the existing facility. The maps should have a scale of distance and a legend clearly identifying the signal levels depicted and the propagation model used to produce them and the assumed frequency for which the plot was generated.
- [ ] 2. Link budgets (both base to portable and portable to base) clearly identifying the assumed losses and gains in both the transmit and receive paths.
- [ ] 3. Provide the transmitter output power, the type and length of coaxial cables to be used, the ERP, make, model, and specifications for all base station antennas (both transmit and receive) including the horizontal and vertical antenna patterns and orientations for all antennas (both existing and proposed) requiring study.
- [ ] 4. The bases for any losses assumed for foliage, land use/land clutter and/or building penetration.
- [ ] 5. If there is an FCC requirement for coverage (such as for 900 MHz SMR's), explain how this requirement affects the need for the proposed facility.
- [ ] 6. For all existing and proposed sites: ground elevations, geographic coordinates, overall tower heights and heights of antenna centerlines above ground level for all carriers for whom coverage evaluation is to be done.

### IV. REQUIREMENTS FOR BROADCAST FACILITIES PROPONENTS (INCLUDING AM radio, FM radio, TV, FM translators, LPTV, DTV)

- [ ] 1. A complete copy of the technical portion of the proponent's application with the FCC. This should include all pages from the technical portion of the appropriate FCC form, all accompanying text and engineering exhibits that accompany the FCC form.

### V. REQUIREMENTS FOR MICROWAVE FACILITIES PROPONENTS

- [ ] 1. Complete link budgets for equipment at both ends of all microwave paths. This should include transmitter output power, transmission line or waveguide makes, models and lengths, antenna makes and models along with gains. Path losses should be determined and identified for each link.
- [ ] 2. Operating frequencies for all microwave paths.
- [ ] 3. Orientations of all antennas.
- [ ] 4. What is the nature of the traffic to be sent over the microwave?
- [ ] 5. What is the proposed capacity of the microwave system?
- [ ] 6. For all sites: Ground elevations, geographic coordinates, overall tower heights and heights of antenna centerlines above ground level for all antennas.