

**Engineering Statement**  
**In Support of an**  
**Application for a Construction Permit**  
**WWIZ, Mercer, Pennsylvania**

**WWIZ Longley-Rice Study Parameters**

Software Author and Version:	SoftWright, Version 4.1.586
Transmitter Latitude:	41:13:10.0N
Transmitter Longitude:	80:28:25.0W
Transmitter Center of Radiation:	465.0 meters AMSL (155.3 meters AGL)
Frequency:	103.9 MHz
Power (ERP)	3.2 kW
Antenna:	Directional
8 radials (84° to 91°, from 0.1 km to 50.0 km in 0.1 km increments)	
Terrain resolution: 3-arc second NGDC database	
Receiver Antenna:	9.14 meters
Mode of Variability:	11 (Individual Mode)
Confidence:	50%
Reliability:	50%
Polarization:	Vertical
Relative Permittivity:	15
Conductivity:	0.005 (S/m)
Climate:	5 (Continental Temperate)
Sea Level Refractivity:	0
Surface Refractivity:	300.90
Effective earth curvature:	1.333