

STATEMENT OF PETER TANNENWALD

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My name is Peter Tannenwald. I was born in the District of Columbia and have been a resident of the Friendship Heights area for the past 30 years. I am a lawyer by profession. My specialty is communications. I do not represent any tower owner or any tenant in the District of Columbia except for The American University, which owns a tower at Nebraska and Massachusetts Avenues, and two low power TV stations that are tenants on an existing tower and a building rooftop in Northwest.

Tower construction involves at least five basic issues: visual impact, airspace safety, risk of injury to people on the ground, hazardous radiation, and the need of the public for radio services. All five should be considered in zoning regulations.

Visual impact should be minimized. If a new tower is proposed, the proponent should bear the burden of demonstrating that existing towers and rooftops cannot meet current and project area needs. If a proponent claims it is only replacing a tower, any favorable presumption should disappear if the increase in height is more than ten or twenty percent. Otherwise, there is added visual impact, not a substitution.

Painting and lighting options include bright orange and white paint or no paint and red lights or flashing white strobe lights. The Federal Aviation Administration normally specifies the requirements. But proponents should be required to minimize visual impact, for example by aiming strobe lights up to the sky and minimizing light emission toward the ground.

Airspace safety is the province of the FAA, but any local zoning approval should be conditioned on receipt of FAA approval.

Risk of injury to people on the ground exists from falling ice and attractive nuisance. Ice forms on towers falls in blocks when the temperature rises. Setback is critical to give ice a place to fall. Tower legs must not be immediately adjacent to buildings. Proposals for de-icing equipment should be examined carefully. De-icers may be designed to avoid ice that degrades antenna performance but not eliminate falling ice from the tower itself.

The base of the tower must be inaccessible to curious children, vandals, or adventurers. Fencing is critical but has its own visual impact that must be considered. A tower near a sidewalk or road would obviously raise questions.

Federal law governs hazardous radiation and limits local authority in this area. But there is nothing to stop the City from insisting on a detailed showing of compliance with federal regulations as a condition of local approval. The FCC's rules ignore radiation sources that result in less than 5 % of the federal limit, but they require an assessment of the cumulative impact of

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multiple antennas and nearby towers. Computer models become extremely complex as the number of antennas increases. I suggest two approaches: Each antenna that would radiate less than 1 % of the federal limit should be assumed at 1 %, and antennas over 1 % should be counted at their actual radiation level. If the total exceeds 90% of the federal limit for the general public, a detailed and sophisticated computer analysis should be required before zoning approval, and actual measurements with instruments in the field should be required after construction. Standards should be developed for how often these measurements should be repeated. Radiation from nearby towers within a quarter or half mile must be factored into the calculations. In other words, federal regulations limit substantive local standards but not reasonable and practical verification requirements.

The need of the public for radio services often argued by tower proponents, but it should be backed up. Federal law forbids rejecting towers only when the total effect of rejection is to prevent the provision of wireless communication services by anyone, not just one vendor. There is no comparable federal law protecting broadcast services. It is important to note that wireless services using cellular design normally must not have antennas too high above the ground, because they re-use their frequencies at multiple locations, and no one location should have too large a coverage area. If a proponent claims that its tower is required under federal law, it should have to show what area is unserved, whether other companies provide service to the area, and what other towers and building rooftops are available and why they are unsuitable. Without those showings, arguments based on federal law should be disregarded.

Thank you.