

September 10, 2017

TO: Madison ALRC

RE: 9/13 Agenda Item #20 - Edgewater 18+ Center for Visual & Performing Arts License

FROM: Marsha Cannon, XXXXXXXXX, Madison

For 28 years I have resided in the Tenney-Lapham neighborhood. We endure unwanted sound from loud musical performances at Central Park, Breese Stevens Field, and Memorial Union. I support Mansion Hill residents who object to the Edgewater's overly-loud "entertainment."

Noise is a public health issue. According to the Madison and Dane County Public Health office<sup>1</sup> unwanted noise affects human health—from annoyance to sleep disturbance, interference with communication, decreased school performance, increased levels of stress, and modification of social behavior.

An 8/11/17 revision to Edgewater's permit application requests a maximum 95 dBA at plaza level and 80 dBA at the street. It does not indicate just where the plaza level noise will be measured, but the source might produce 100 dBA or more. National Institutes of Health researchers recommend no more than 15 minutes of unprotected exposure at 100 dB to avoid hearing loss; prolonged exposure to any noise at or above 85 decibels can cause gradual hearing loss.<sup>2</sup>

I notice that some parents bring young children to loud events like outdoor music and films at the Edgewater, thus risking damage to their children's hearing. The World Health Organization warns of "adverse effects of excess noise exposure for children include hearing loss, physiological and psychological effects and impaired cognition." Very loud noise "can destroy the eardrum and damage the hair cells of the cochlea."<sup>3</sup>

Experts report that perceived loudness cannot be objectively measured. One sound might seem twice as loud as another when they're about 10 decibels apart, yet the *10-decibel difference represents a 10-fold increase in intensity*. The potential for a sound to damage our hearing is proportional to its intensity, not its loudness.<sup>4</sup> Zero decibels (0 dB) is the quietest sound audible to a healthy human ear. From there, every increase of 3 dB represents a doubling of sound intensity, or acoustic power. At plaza level, 95 decibels at plaza level represents more than 1,000 times the 60 decibel level of normal conversation and the 65 decibel allowed by MGO 24.08 in residential areas.

Sound Level	Sound Intensity (Power)	Perceived Loudness
60 dB	1x	1y
70 dB	10x	2y
80 dB	100x	4y

**I oppose granting the Edgewater's entertainment license unless it includes a maximum 65 dBA sound limit at the Edgewater property line.**

<sup>1</sup> Public Health Madison & Dane County, "Potential Health Effects of Noise Exposure" MSPH, Environmental Epidemiologist, updated June 7, 2013 <http://www.publichealthmdc.com/environmental/healthyhomes/noise.cfm>

<sup>2</sup> <https://www.nidcd.nih.gov/sites/default/files/Documents/health/hearing/HowLoudRuler.pdf>

<sup>3</sup> Children's Health and the Environment: WHO Training Package for the Health Sector. World Health Organization. [www.who.int/ceh](http://www.who.int/ceh)

<sup>4</sup> The Decibel Scale, <http://www.noisehelp.com/decibelscale.html>. Accessed Feb. 11, 2015

MGO Section 24.08 – OFFENSES AGAINST PEACE AND QUIET

Receiving Zone Classified	Source Level Zoned	Maximum dBA
Residential, Conservancy, Planned Mobile Home Park Districts	All zoning districts	65 dBA
Limited Mixed-Use (LMX), Neighborhood Mixed-Use (NMX), Traditional Shopping Street (TSS), Suburban Employment Center (SEC), Employment Campus (EC), Suburban Employment (SE), Parks and Recreation (PR), Urban Office Residential (UOR), Urban Mixed-Use (UMX), Campus Institutional (CI), Planned Development (PD)	Residential, Conservancy, Planned Mobile Home Park Districts	65 dBA
	Limited Mixed-Use (LMX), Neighborhood Mixed-Use (NMX), Traditional Shopping Street (TSS), Suburban Employment Center (SEC), Employment Campus (EC), Suburban Employment (SE), Parks and Recreation (PR), Urban Office Residential (UOR), Urban Mixed-Use (UMX), Campus Institutional (CI), Planned Development (PD) Districts	70 dBA
Industrial – Limited (IL), Industrial-General (IG), Airport (AP), Commercial Center (CC), Commercial Corridor – Transitional (CC-T), Traditional Employment (TE), Agriculture (A), Urban Agricultural (UA), Downtown Core (DC)	Residential, Conservancy, Planned Mobile Home Park Districts	65 dBA
	Limited Mixed-Use (LMX), Neighborhood Mixed-Use (NMX), Traditional Shopping Street (TSS), Suburban Employment Center (SEC), Employment Campus (EC), Suburban Employment (SE), Parks and Recreation (PR), Urban Office Residential (UOR), Urban Mixed-Use (UMX), Campus Institutional (CI), Planned Development (PD) Districts	70 dBA
	Industrial – Limited (IL), Industrial-General (IG), Airport (AP), Commercial Center (CC), Commercial Corridor – Transitional (CC-T), Traditional Employment (TE), Agriculture (A), Urban Agricultural (UA), Downtown Core (DC) Districts	75 dBA