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January 31, 2022

Mr. Don Louchheim
Village of Sagaponack
P.O. Box 600
Sagaponack, NY 11962

via email at don11962@gmail.com

Subject: Suggestions for a noise bylaw for pickleball courts
Reference: HMMH Proposal No. 22-0026

Dear Mr. Louchheim,

As we discussed by telephone last week, this letter includes suggestions for provisions in a noise bylaw for pickleball courts in the Village of Sagaponack. The purpose of the bylaw would be to minimize the intrusiveness of noise from residential pickleball courts into neighboring properties.

Some of the acoustics principles incorporated into the recommendations for this bylaw include the attenuation of sound with distance, diffraction of sound over solid objects such as walls and fences, and sound transmission of sound through materials.

Our first recommendation is that any pickleball court be required to be set back at least 60 feet from the owner's property lines, where the adjacent property is noise sensitive, such as a residence or a park. Sixty feet is twice the distance required for other structures, but the same as is required for tennis courts. By doubling the setback distance, the sound levels from pickleball activity will be reduced between approximately 7 and 10 decibels. That reduction would be heard subjectively as up to a halving of the loudness.

Our next recommendations serve to block the direct paths of sound from the court to neighboring sensitive properties nearby. We suggest that the bylaw requires any pickleball court to be depressed or sunken into the ground to a depth of at least four feet. We understand that this is also required of tennis courts. We also recommend that the bylaw require that a six-foot-high wall or fence be constructed around pickleball courts to block the direct sound paths to neighboring properties. This combination of sunken court and wall will serve to reduce sound levels from pickleball activity by 10 decibels or more at neighboring properties, and would be heard as at least a halving of the loudness. Pickleball courts need not be sunken by four feet nor required to build a wall if neighboring properties are 200 feet or more away from the court. That additional distance will provide sufficient additional noise reduction.

The wall around the pickleball court must meet the following minimum criteria. It must be constructed of a sufficiently heavy and dense material to prevent appreciable levels of sound from passing through it. To achieve this, the surface weight should be at least 2 lb. per square foot. The wall/fence material must also be airtight or nearly so, with no clearly visible gaps of more than 1/8 inch. The bottom of the wall/fence should contact the ground. Plywood siding commonly called T1-11 at 19/32 in. thick would be a suitable material for the fence/wall. The wall/fence should be located no more than 10 feet from the edge of the pickleball court. This proximity will ensure that

the wall provides sufficient diffraction of sound over the top of it. If the wall is located far from the court, its noise reduction benefit will be reduced.

Finally, the pickleball court wall need not fully surround the court, if a large building, such as a residence blocks the sound path between the court and the neighboring property. Also, the wall need not block the sound paths to neighboring properties that are 200 feet or more from the court. However, in both cases of a large building blocking sound paths or the 200-ft distance, the length of the wall/fence must overlap with the direct lines between any part of the pickleball court and the edges of the building or the property-line distance of 200 feet by at least 10 feet.



If this last provision to allow for a shorter length wall is not clear to you, please let me know. Or, if you believe it would be too complicated to include in a bylaw, it isn't necessary to include. Perhaps you have other ideas on how other building shielding or additional distance along some sides of the pickleball court could be accommodated in the bylaw.

Please feel free to contact me if you have any questions or comments.

Sincerely,
Harris Miller Miller & Hanson Inc.

Christopher W. Menge, INCE
Senior Vice President