



June 24, 2026

Peter Barrett
Green Hedges School
415 Windover Ave NW
Vienna, VA 22180

Project: Green Hedges Playground Noise Analysis
Location: Green Hedges School, Vienna, VA

Dear Mr. Barrett,

Polysonics has performed several analyses of the Green Hedges site as documented in Polysonics Report #6341. This analysis has determined that an attenuation level of ~5 dB to an off-property location can be achieved with a 6' tall barrier located at the property line; in turn, this means that the nominal STC rating of a barrier yet to be fully designed but intended for this location will need to be 15 points or greater.

An STC of 15 is very easy to achieve and many different configurations will meet or exceed this level of sound transmission performance. To put things in perspective, one commercially available low-cost vinyl fence often used as a sound barrier has an STC rating of 24. Another commercially available device intended to be affixed to chain link fences called Pickleblok RPA from Acoustiblok has an STC rating of 28. A ¾" thick piece of standard plywood has an STC rating of 21.

With the understanding that whatever barrier design is implemented will need to be contiguous (no gaps between slats/posts – i.e., no butt joints unless sealed with caulk) there are innumerable barrier designs that will achieve an STC of 15 or greater.

It should also be understood that increasing the nominal STC rating of this barrier beyond 15 does not change the attenuation achieved at the off-property location. Acoustically, a 6' barrier made of solid lead will behave the same as a barrier made with ¾" plywood; similarly, adding a massive layer such as mass loaded vinyl to a wooden barrier also will not change the attenuation achieved at the off-property location.

Another scenario Polysonics evaluated was to move the barrier 15' in from the property line, closer to the school building. It was anticipated that this would provide some improvement but it did not. While not explicitly evaluated by Polysonics, placing barriers both at the property line and 15' inside the property line is, acoustically, the same as having one barrier 15' in from the property line, a second barrier will not contribute any additional acoustic attenuation.

Polysonics has committed to Green Hedges that we will review and approve the design of whatever barrier they decide to implement to address their noise control concerns.

Please let us know if you would like any further information.

Sincerely,
Polysonics

Stephen P. Rittmueller
Chief Scientist