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MEMORANDUM

To: Karen Sherman, Town Planner
Town of Holliston

From: Christopher Menge, INCE

Date: June 1, 2023

Subject: Peer review of noise study for proposed Bartzak PV Solar Generating facility,
Holliston

Reference: HMMH Project Number 23-0108A

Harris Miller Miller & Hanson Inc. (HMMH) has completed our peer review of the noise analysis performed for the proposed Bartzak PV Solar Generating facility at 0 Bartzak Drive in Holliston, MA.

We reviewed initial reports by Cavanaugh Tocci “Environmental Sound Evaluation, Bartzak PV Solar Generating Facility, Holliston, MA” dated March 8 and May 25, 2023. We have also reviewed a revised report labeled “Draft 3” dated May 30, 2023. The revised report was prepared in response to comments we offered after initial reviews requesting more information about noise emissions and spectral content of the sources and as predicted at the homes.

I have found the noise study to be comprehensively and conservatively prepared, addressing all pertinent state and local noise regulations and bylaw provisions. Appropriate background sound measurements were conducted for 7 days at two locations on site to identify the quietest period in the week when the facility would be in operation. The noise model that was developed and the modeling approach were sufficiently detailed, and appear to account for all significant noise sources and sound propagation paths to all the nearest homes and property lines. The noise modeling used the sound propagation equations of ISO 9613-2, which are conservative and assume slight downwind or temperature inversion conditions favorable to sound propagation.

The noise modeling shows that the facility will clearly comply with the Town of Holliston Bylaw and Massachusetts Department of Environmental Protection limits. Both jurisdictions require predicted noise levels to not exceed 40 dBA for the north residences and 42 dBA for the south residences. These sound level limits are 10 dBA higher than the lowest measured hourly background sound levels (L90, the sound level exceeded 90 percent of the hour) of 30 and 32 dBA near those communities during the facility’s planned operating hours from 6:00 AM to 8:00 PM.

Table 1 in the report shows that the highest projected sound level from the facility is only 30 dBA at the property line of 2 Mohawk Path. Table B-4 in Appendix B shows the combined quietest background and facility octave band sound levels computed at the community locations. These spectra show that no tonal condition would exist, such that the sound level in no single octave band exceeds the levels in the two adjacent bands by 3 dB or more.

In conclusion, the predicted facility sound levels would be equal to or less than the lowest measured background L90 sound level of 30 dBA and no tonal conditions are predicted. Therefore, not only would the facility noise levels be well below the MassDEP and Town of Holliston noise limits, but we believe the facility sound would be inaudible at the closest homes most of the time and inaudible at the homes evaluated farther away all the time.