

Exhibit J
Ambient Sound Level Measurements
David Braslau Associates, Inc.
April 19, 2021



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19 April 2021

MEMORANDUM

TO: Dean Sather
Westwood
12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343

FROM: David Braslau

RE: Grover Hill Ambient Sound Level Measurements

This memorandum describes and summarizes ambient sound level measurement data taken at six locations in the proposed project area in Paulding County, Ohio, in September 2020. The raw data files were provided by Westwood for data extraction and analysis. The data included one-minute readings for LASmax, LAFmax, LAImax, LCpeak, LAeq, and LAIeq. The only metric used for determining compliance is the LAeq, in this case, the one-minute LAeq or the A-weighted Equivalent Energy Level. Therefore, only this level is addressed in this memorandum.

The following data sets, location, and monitoring start date were provided for evaluation:

- SW quarter of Section 10 (4637989 9/2/20)-1
- NE quarter of Section 12 (4838005 9/3/20)-2
- NE quarter of Section 23 (4838005 9/2/20)-1
- SE quarter of Section 25 (4637989 9/3/20)-2
- NW quarter of Section 27 (4637989 9/4/20)-3
- SW quarter of Section 35 (4838005 9/4/20)-3

These locations are shown on **Exhibit 1** identified by the last three digits, reading number, date, and average nighttime LAeq. It can be seen from **Exhibit 1**, that only the northeast, southwest, and southeast readings are less than or close to 50 dBA. The northwest reading (85 dBA) is high, even for a daytime level, and can only be explained by a loud nearby noise source. Even the south level (71 dBA) is high for a nighttime or daytime level. Based on these readings, an overall average nighttime LAeq level for the entire study area does not appear to be possible. The average nighttime level of the northeast (53 dBA), southwest (45 dBA) and southeast (53 dBA) readings is 50 dBA. The average of the remaining readings is 71 dBA, rather high for a nighttime background level. It is unlikely that local winds created these high levels, although no meteorological data are available for the monitoring period.

The individual readings are examined and discussed below.

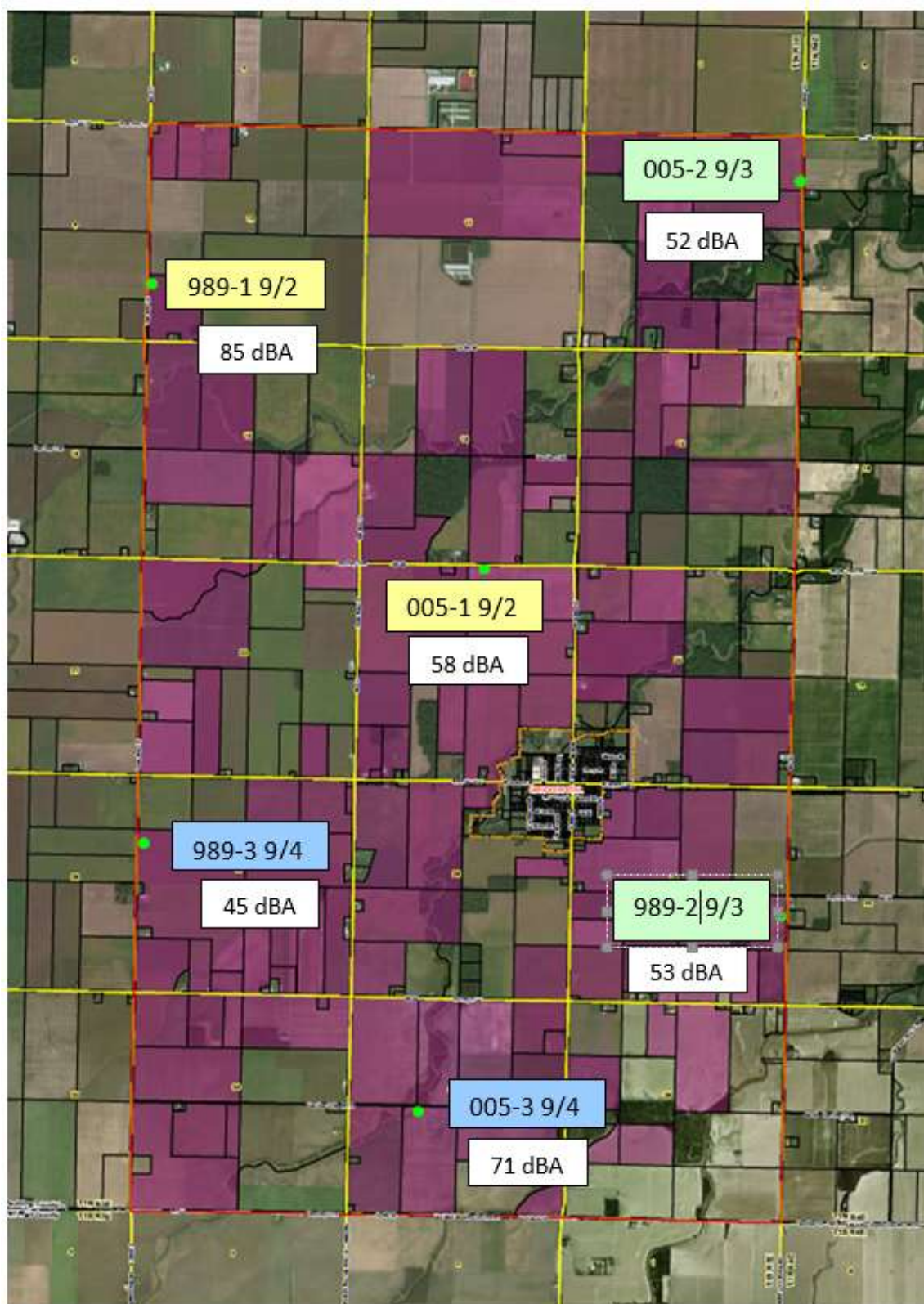
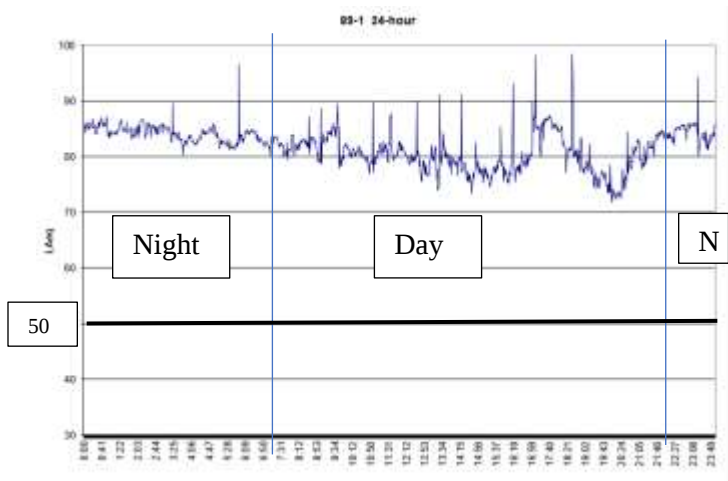
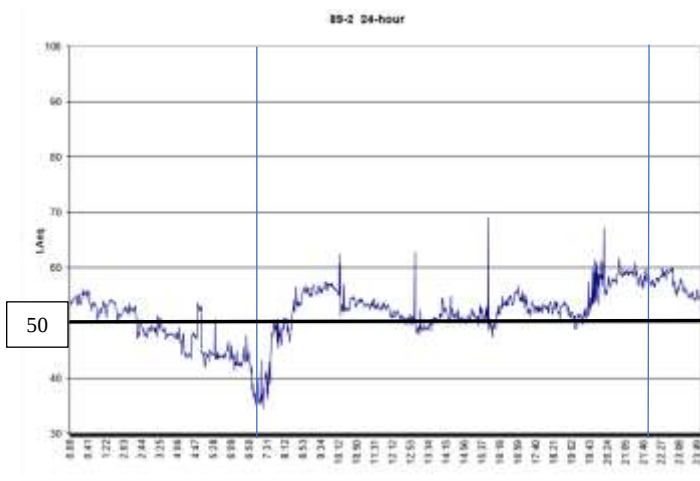


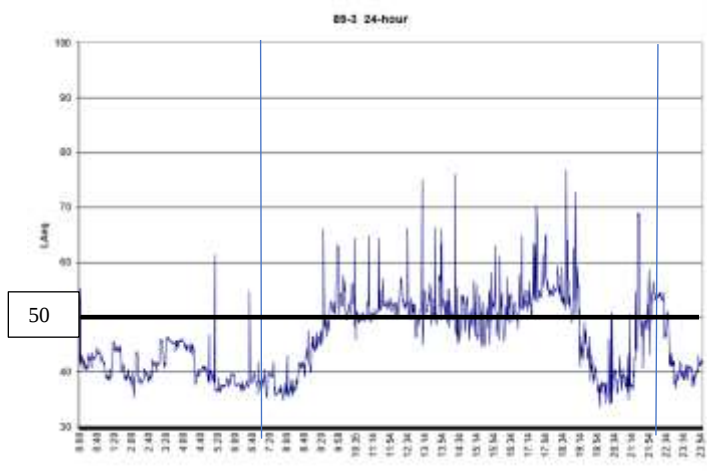
EXHIBIT 1 Monitor Locations – Start Date – Average Nighttime LAeq



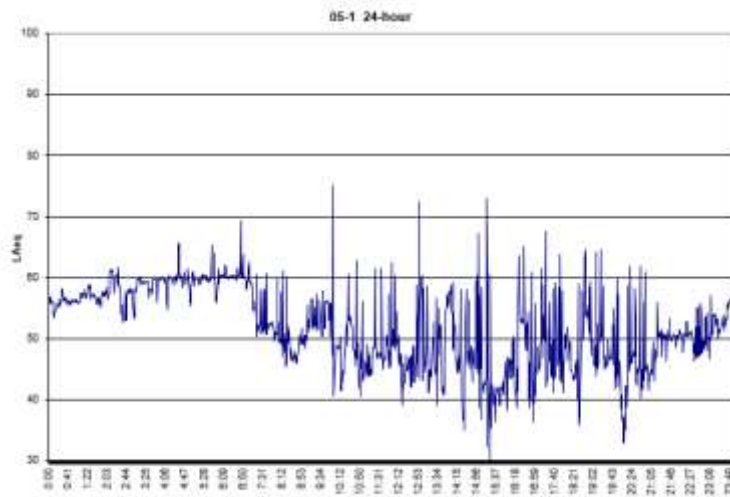
89-1 (SE) The level is extremely high for background and shows no reduction in level during nighttime hours. Clearly, some nearby source is dominating these levels.



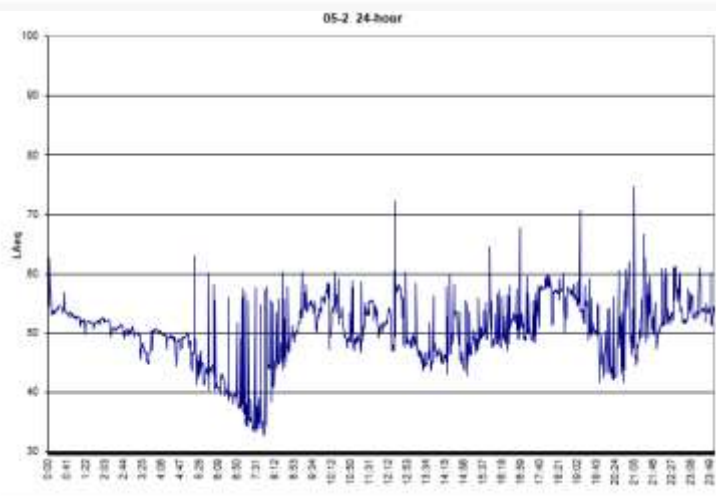
89-2 (NW) The level decreased in the night before rising in the morning. This suggests some type of varying source in the vicinity of this meter.



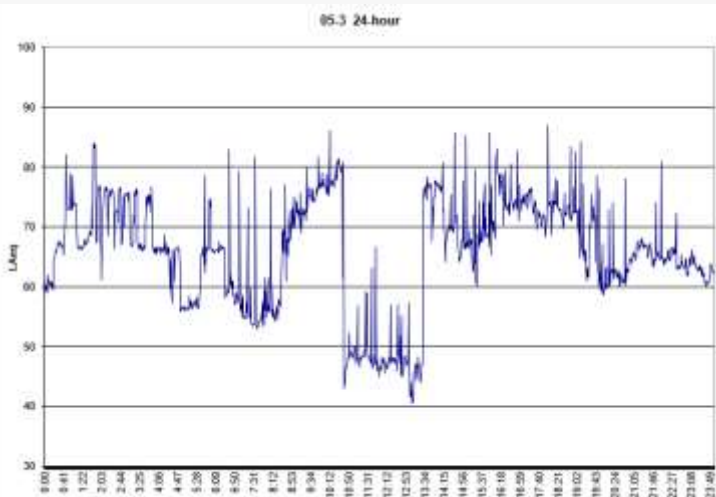
9-3(SW) The level here is standard for nighttime and daytime traffic except for some event around 10 pm.



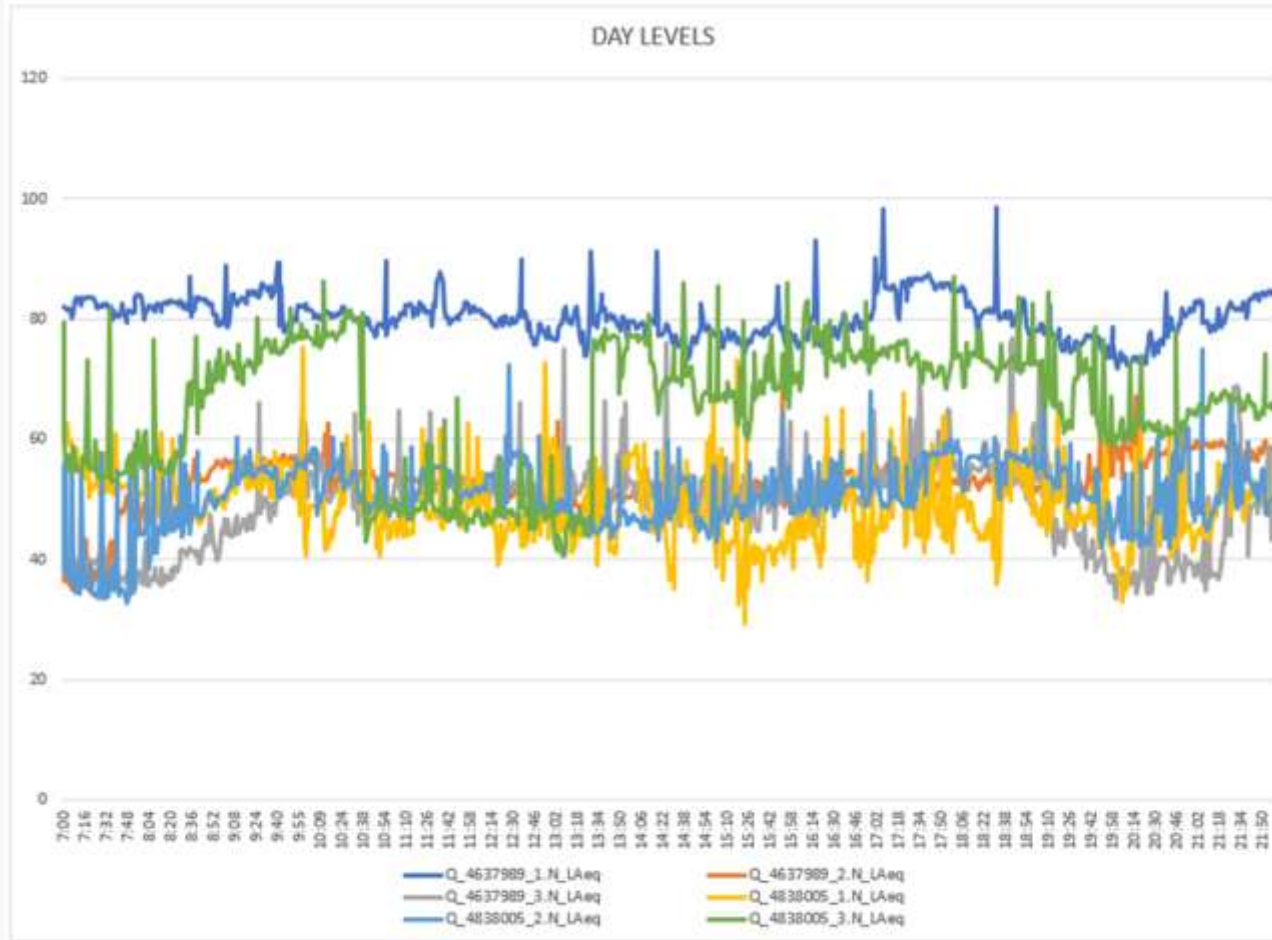
05-1 (center) This is another unusual time history with sound level increasing until morning, then dropping followed by typical traffic noise during the daytime hours.



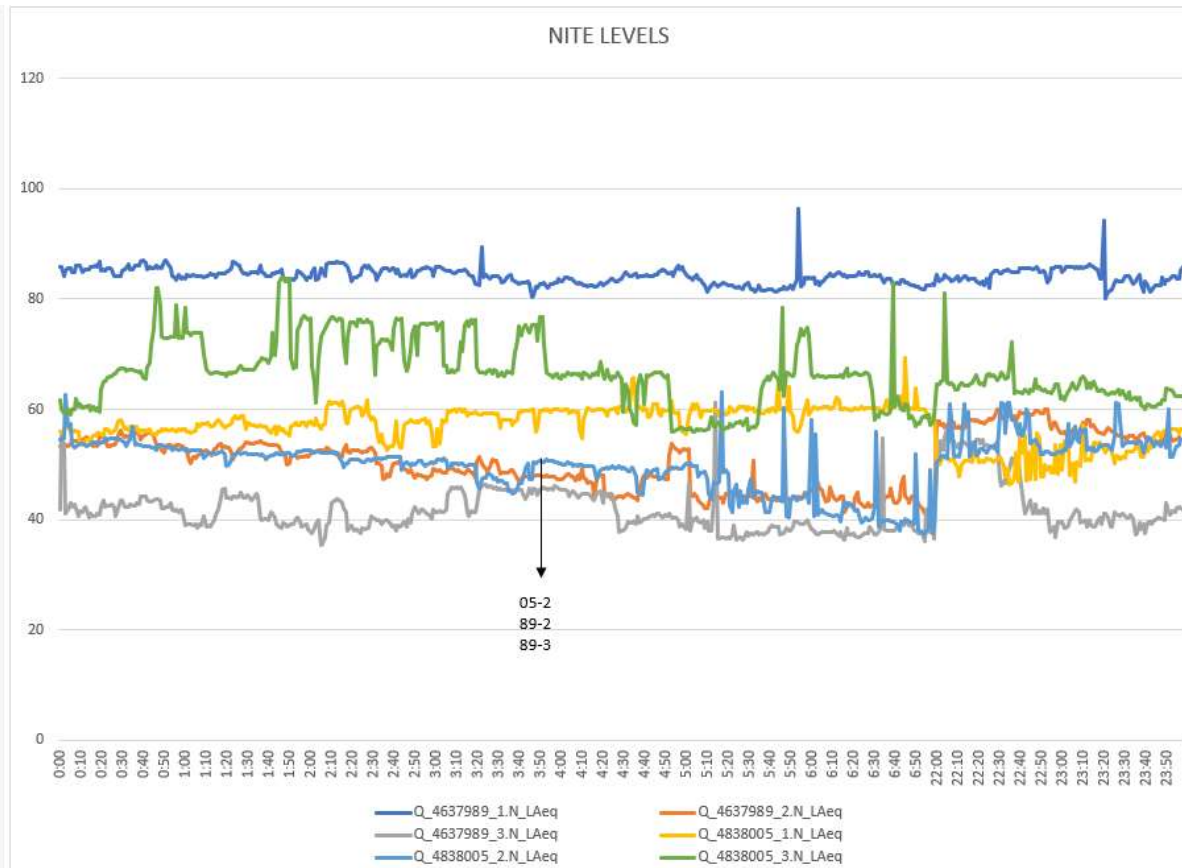
05-2 (NE) Here the early morning behavior is also not normal, dropping to a low level before picking up with normal traffic noise levels during the day.



05-3 (NW) The sudden drop of 30 dBA at about 10 am may have been due to a meter malfunction. This one hour drop in sound level cannot be explained. The early morning levels are quite high with numerous peaks, possibly associated with agricultural equipment activity.



These DAY-ONLY levels are generally consistent around 50 dBA for all of the sites except for 89-1 which is the highest and 05-3, which is quite high but more variable.



These nighttime time histories clearly show the variability in sound level at the different monitoring sites. Three of the sites, to the north and northwest have generally similar nighttime levels and are almost identical for one hour. The constant level for 05-1 (yellow) is likely due to mechanical equipment. This chart clearly demonstrates the problem of averaging levels over the entire project area.

The table below of LAeq daytime and nighttime averages summarizes the monitoring results. This clearly shows the wide range in sound levels over the project area. Daytime levels are close to 55 dBA at four of the sites. Site 05-1 is unusual in that the daytime average is lower than the nighttime average. This can be seen on the top chart on page 4.

SITE	DAY	NIGHT
89-1	82	85
89-2	54	53
89-3	57	45
05-1	54	58
05-2	55	52
05-3	73	71

As noted earlier, three sites have an average nighttime level of 50 dBA. If there are no noise sources near residences, such as those affecting the other monitoring sites, one might be able assume an area wide background of 50 dBA.

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Summary: Application - 13 of 40 (Exhibit J - Ambient Sound Level Measurements)
electronically filed by Christine M.T. Pirik on behalf of Grover Hill Wind, LLC