

4 December 2024

Atlantic Health System, Inc.
c/o Karen Martinez
100 Madison Avenue
Morristown, New Jersey 07960
karen.martinez@atlanticealth.org

Re: Acoustical Evaluation of West Pavilion Building Reflection
Morristown Medical Center
100 Madison Avenue, Morristown, New Jersey
LSG&A File 2024146

Dear Ms. Martinez:

Lewis S. Goodfriend & Associates (LSG&A) has completed an evaluation of the expected sound reflections of highway noise due to the proposed West Pavilion building at the Morristown Medical Center in Morristown, New Jersey. This letter summarizes the results of our evaluation.

1.0 SITE LAYOUT

The proposed West Pavilion building is to be located on the west side of the Morristown Medical Center campus, south of the employee parking garage. The Route 287 highway is located to the west of the campus, with residential properties located on the opposite side of the highway. Figure 1, at the end of this letter, shows an aerial view of the site and surrounding areas.

2.0 ACOUSTICAL EVALUATION

While public roadway noise is not subject to the limits of the State or local noise regulations, LSG&A understands that the community has expressed concerns regarding the potential for additional highway noise due to sound reflections off of the new West Pavillion building façade. To calculate the potential change in sound levels at the adjacent properties, an acoustical model was developed that considered the propagation of sound over distance, the shielding and reflection of sound due to buildings and barriers, the effect of topography, and the effect of air and ground absorption. The modeling was performed using SoundPLAN software and the calculation methodology outlined in ISO Standard 9613-2.

The highway was modeled using a typical roadway noise source in the modeling program database, and the site was modeled with and without the proposed West Pavilion building present. The difference in sound level between the two models shows the expected change in sound levels due to the presence of the new building. Figure 2, at the end of this letter, shows the expected overall A-weighted sound level change, which indicated an increase of less than 1 dB(A)¹ at the residential properties to the west. The Federal Highway Administration quantifies a 3 dB(A) change to be barely perceptible², and therefore the potential increase in traffic noise of up to only 1 dB(A) is not expected to impact the adjacent residential properties.

3.0 FUTURE ACOUSTICAL EVALUATIONS

LSG&A is also engaged in the acoustical evaluation of the existing and proposed mechanical equipment, as well as the acoustical impact of the helipad relocation to the roof of the new West Pavilion building. These evaluations are currently ongoing and the results will be provided at a later date upon completion.

I trust that this information is sufficient for your present needs. Please call if you have any questions regarding this letter.

Very truly yours,

LEWIS S. GOODFRIEND & ASSOCIATES



Jack A. Zybura, P.E., INCE Bd. Cert.
Associate Principal

JAZ:jaz

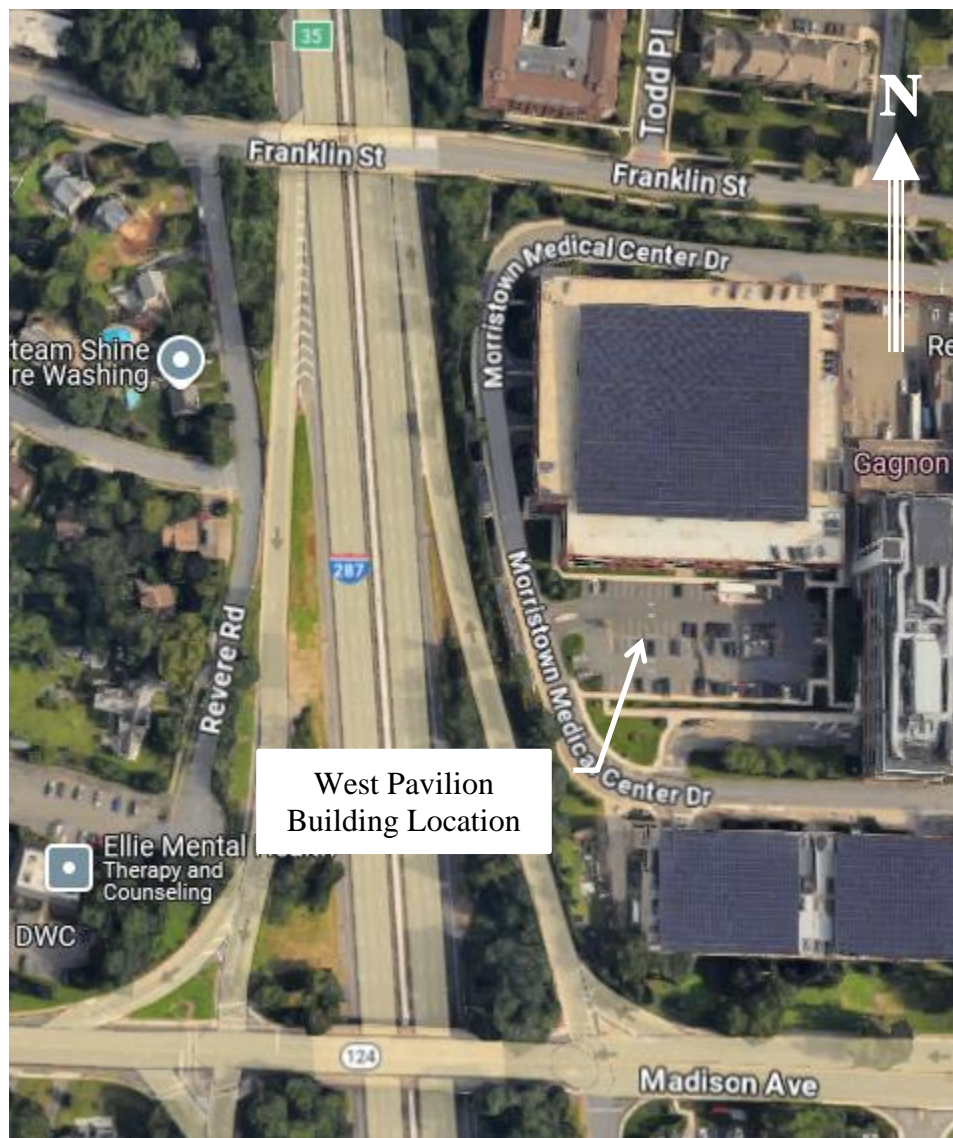
Enclosures

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¹ A-weighting, noted as dB(A), is a standardized sound level meter setting having a frequency characteristic similar to the human ear/brain frequency sensitivity.

² Highway Traffic Noise Analysis and Abatement Policy and Guidance, U.S. Department of Transportation, Federal Highway Administration.

Figure 1 – Aerial View Showing the West Pavilion Area and Surrounding Areas, Morristown Medical Center, Morristown, New Jersey.



NOTES: All Locations Approximate
Not to Scale
Not for Construction

Figure 2 – Expected Change in Highway Noise due to West Pavilion Building, Morristown Medical Center, Morristown, New Jersey.

