



APPENDIX D

Acoustics Study Report



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June 29, 2026

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Las Vegas, NV 89118

Via Email: jevans@switch.com

Subject: Acoustics Study Report
PIT 01-03, Beaver County, PA
Project Number J640472

Dear Jonathan,

This letter provides our results and analysis for the PIT 01-03 project in Beaver County, PA. We performed a site visit to measure ambient noise conditions on the property and created a computer-based acoustical model to predict sound levels after the data centers are constructed. This letter summarizes our findings and includes a comparison of the estimated sound levels due to operation of the equipment to existing ambient conditions and applicable noise codes. The following items were received and used for the purposes of our analysis

- PITT RACEWAY CONCEPT_REN_Equipment Markup (Dated Dec 2025)
- DEG 604 Acoustic Studies v01 (Dated 05/30/26)
- PIT01-03_RFP Acoustical Study v00 (Dated 05/01/26)
- PIT01_PIT03_SITE_30%_CIVIL (Dated 05/26/26)

SITE LAYOUT

The project includes the construction of three new data center building. The project is located at the northern most edge of Beaver County, in the Borough of Big Beaver, about one hour north of Pittsburgh PA. Lawrence County is directly adjacent to the north. Major nearby roads include I-76 (~1 mile to the south) and I-376 (~0.8 miles to the west). The three buildings are oriented parallel to each other and run east-west on the south side of the site, see FIGURE 1 for further clarity.

Cooling for each building will be provided by chillers, located at ground level, along the south side of each building. Emergency generators, providing back-up power during power outages, will be located in sound rated enclosures (at grade) along the north side of each building.

The topology of the site and the general area is relatively hilly with significant grade changes. The site is expected to be graded to provide a flat area for the data center buildings and associated substations.



FIGURE 1: Concept Map of site with highlighted Chillers (in Blue) and Generators (in Red). Buildings and other infrastructure are in orange.

SOUND LEVEL GOALS

We understand the current property is zoned as Industrial with neighboring areas being zoned as follows

- Interstate Commercial to the southwest
- Multi-Use Neighborhood to the southeast,
- Industrial to the east
- Rural Residential to the west.
- The residential district of Lawrence County is located directly north of the site.

The following sections relate to our understanding of current applicable noise regulations.

BEAVER COUNTY NOISE REGULATION

We have performed a review of publicly available records and have found there is no quantitative noise ordinance identified for Beaver County. Issues relating to noise are left to the jurisdiction of local municipalities, which is identified as the Borough of Big Beaver, for this site.

Borough of Big Beaver Zoning Code

The zoning ordinance identified for the Borough of Big Beaver specifically mentions having requirements for Data Centers. This language is seen in FIGURE 2 below with highlights to specific quantitative noise requirements.

The requirements related to the sound study which “estimates current ambient sound levels” has been provided within this report and has been determined based on our ambient measurements.

The requirements related to the sound study which determines “Acceptable post construction sound levels... at the time of operation along all tract lines” has been provided within this report. This is based on our environmental noise computer model.

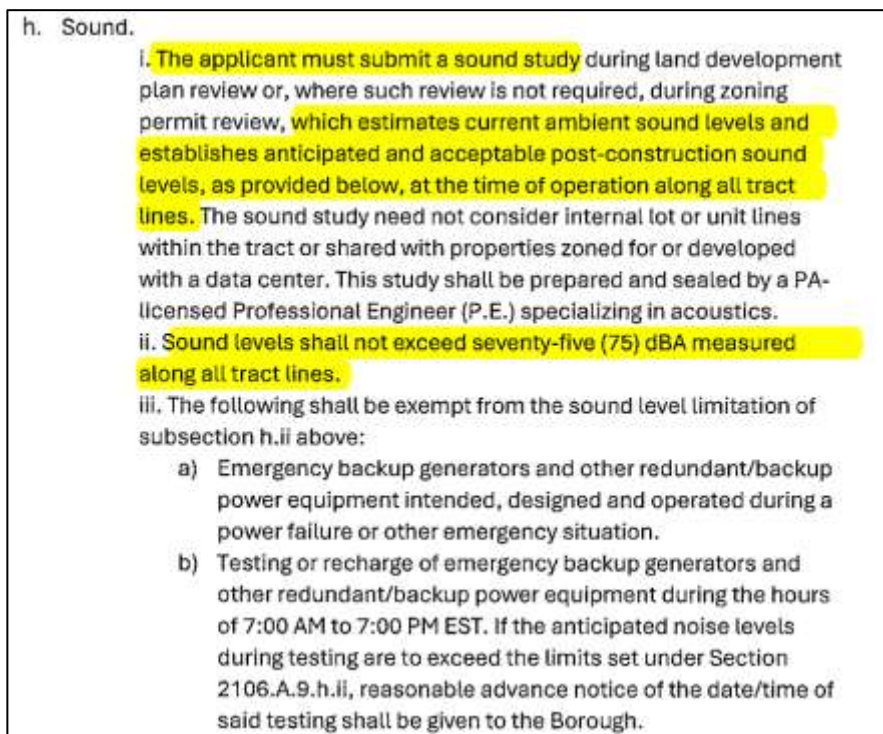


FIGURE 2: Screen shot of zoning ordinance for Big Beaver Borough

LAWRENCE COUNTY NOISE REGULATION

Lawrence county is located directly north of the site and thus we expect all applicable regulation applies to this project. We have performed a review of publicly available records and have found there is no quantitative noise ordinance identified for Lawrence County. Issues relating to noise are left to the jurisdiction of local municipalities, which is identified as New Beaver Borough and is adjacent to this site.

New Beaver Borough Noise Regulation

We have performed a review of publicly available records and have found there is no quantitative noise ordinance identified for Data Centers or general development of land. The only quantitative noise code requirements relate to solar energy facilities, which we understand does not apply to this project.

SUMMARY OF NOISE CODES

Based on the reviewed regulations, noted above, we understand the most stringent code requirement is to achieve 75 dBA or less at all property lines. This is applicable at all times. With that said, we understand that Switch has identified a site requirement of 55 dBA or less at all property lines during times when only chillers are operating. 65 dBA or less is required during chiller and generator testing operations.

As seen in FIGURE 2, we understand that all sound from emergency generator operations during a power outage are exempt. Sounds associated with the testing of emergency generators is also exempt but shall occur within the time limits of 7am-7pm. Furthermore, reasonable advanced notice of the testing date/time is required if sound levels are anticipated to exceed 75 dBA.

SITE VISIT & AMBIENT NOISE

We performed a site visit to measure ambient noise levels at three locations near the property site boundary. Sound level meters were deployed and captured continuous measurements in 1-hr intervals for ~48 hours (5/18/26 to 5/20/26). FIGURE 3 shows the locations where sound level meters were located along with the known project property line.

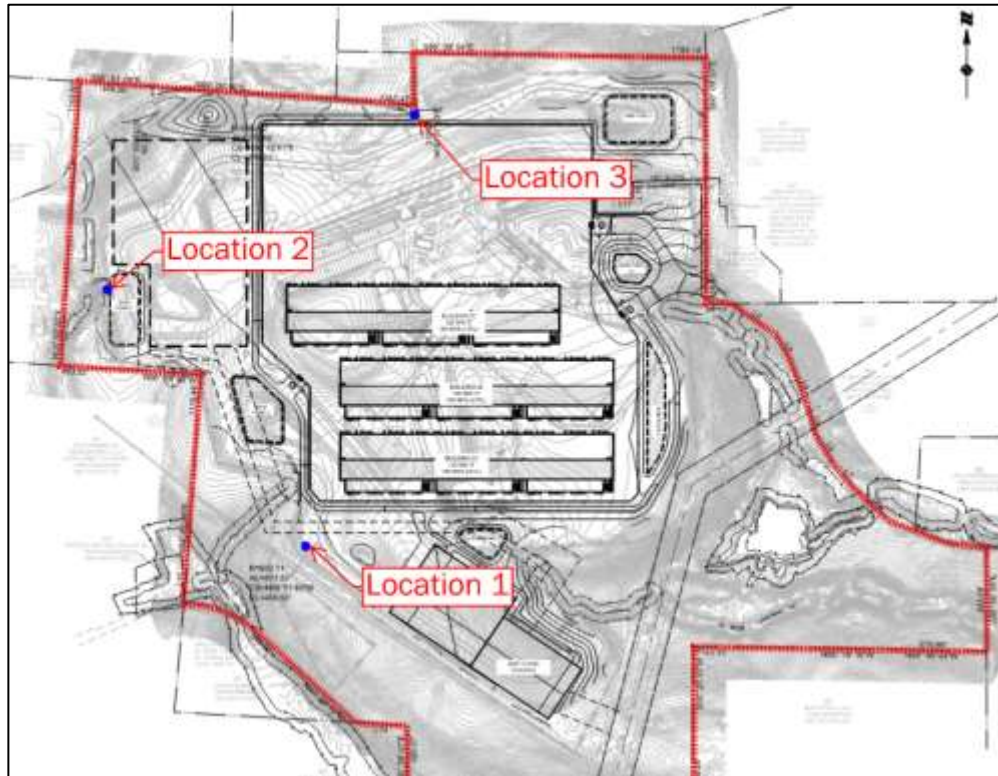


FIGURE 3: Site measurement locations and property boundary overlay.

Sound levels fluctuate depending on the time of day; with the quietest levels during the nighttime hours and the highest levels during the daytime hours. TABLE 1 provides the measured sound level results for daytime, evening and nighttime periods across all 48 hours. Equivalent sound levels (L_{eq}) can be thought of as the average sound level over a given time period and includes both loud and quiet noise events. The L_{90} values represent the sound level which is exceeded 90% of the time within a given time period and are considered to be true ambient conditions or reasonable minimum.

TABLE 1: Measured sound levels at the project site.

Measurement Locations	Measured L_{eq}/L_{90} (dBA)		
	Daytime (7am-7pm)	Evening (7pm-10pm)	Nighttime (10pm-7am)
Location 1	48/42	43/38	65*/40
Location 2	46/41	47/44	45/41
Location 3	50/40	48/36	51/38

*Sound levels are artificially high due to bird activity. A bird landed on the mic and was chirping directly into the microphone for ~10-15 minutes. Actual L_{eq} levels during nighttime hours are expected to be in line with locations 2&3.

Existing ambient sound levels near the property boundary are ~41 dBA and ~39 dBA for daytime and nighttime hours respectively, on average. Measurements show that sound levels are generally

consistent throughout the day, only varying by as much as 4 dBA. This is perceived as a slight (but noticeable) change in the ambient background noise level. While the values noted above are averages based on the 48 hour measurement period, it should be noted that there were periods of time which were much quieter, including values that went down as low as 26 dBA.

Based on the measured values above, the site can be considered to be fairly quiet with the possibility of extremely quiet conditions during some nighttime hours. Intermittent sound included sources such as train horns, train rumble, nearby highway noise, nature sounds (such as birds) and local vehicle traffic on adjacent roads near the site. Please see full time-history graphs for all three locations attached to the end of this report.

SOUND LEVEL ANALYSIS

To estimate the sound pressure levels due to facility operations, we created a computer-based acoustical model using CadnaA® software, based on the site details, equipment locations, and provided sound level data from manufacturers. The acoustical model uses internationally accepted algorithms and methodology to calculate the propagation of sound, in accordance with ISO 9613-2. The model takes into account details, such as the sources, geometry, topography, building features, and atmospheric effects (in accordance with ISO 9613-1). The details of the inputs for the model are described below:

EQUIPMENT LAYOUT & OPERATIONS

The latest equipment layout, which shows ground equipment for all buildings, is dated May 2026, as seen in FIGURE 1. This layout includes all chillers and generators for all three buildings. All other possible equipment associated with the building, such as exhaust fans, RTUs and heat pumps are unknown at this time, but are expected to be significantly quieter and thus be negligible in terms of their influence on sound levels near the property line. Please note that generators are anticipated at grade and we understand no more than two per building will be operated for testing purposes at any given time (6 total).

The data center buildings are understood to have a pitched roof and are ~42' in height at the peak, with approximately 36' high side walls. No screen walls are anticipated at this time, either on top of the building or around the ground mounted equipment yards.

Since the emergency generators will only be exercised during daytime hours (between 7 am and 7pm), and otherwise will not operate unless there is a power outage at the site, we understand they are exempt from the property line sound level limits. Therefore, the results and analysis summarized below include only the chiller operations for comparison to the code.

EQUIPMENT SOUND LEVELS

The specified sound levels for this equipment have been received from the design team and is understood to be representative of manufacturer reported sound data. The data used in our analysis is shown in TABLE 2.

TABLE 2: Maximum Octave Band Sound Power Levels for Chiller Equipment

Equipment Type	Data Type	Octave Band Center Frequencies, Hertz							
		63	125	250	500	1k	2k	4k	8k
JCI YVFA0459 Chiller ¹	Radiated	--	103	99	99	107	104	95	89

Notes:

1: 216 total Chillers (72 per building) are used within the model

SOUND LEVEL RECIEVER LOCATIONS

For the purpose of assessing sound levels at the property boundary, we have identified strategic receiver locations for our acoustic model, as seen in FIGURE 4 below. These locations have been selected based on their proximity to nearby residential receiver locations. Receiver locations located to the east of the site are expected to not be critical, as this is mostly industrial.

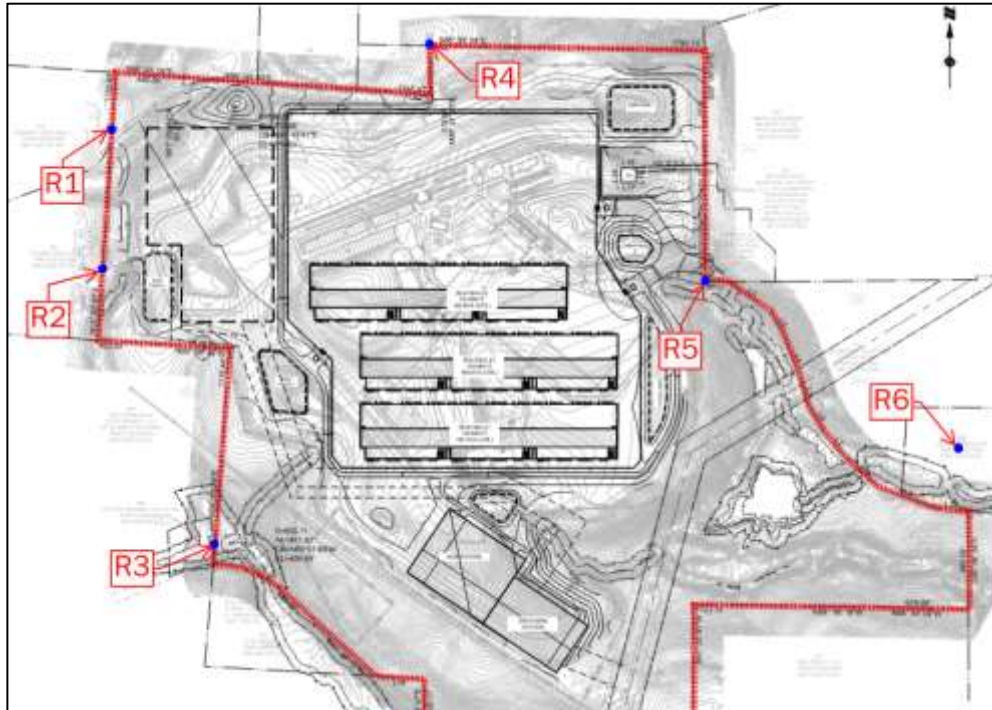


FIGURE 4: Location of Sensitive Receiver Locations used in the Acoustic model.

ASSUMPTIONS

We expect the scenarios and equipment identified above depict the worst case (i.e., highest resulting sound level) conditions and assume conservative assumptions appropriate for environmental assessment. Specific assumptions are as follows:

- The chillers assume JCI YVFA0459 type chillers.
- Computer model variations for conditions when generators are operating (i.e. during a power outage or for maintenance/testing) has not been provided, as this is exempt from all noise code requirements.

RESULTS OF ACOUSTIC ANALYSIS

TABLE 3 provides the calculated sound pressure levels at the receiver locations for the condition where all chillers are operating. This table shows the worst-case condition

TABLE 3: Acoustic Model Results for worst-case conditions.

Model Variant	Estimated SPL (dBA) at Receiver Locations						Code Requirement (dBA)	Switch Requirement (dBA)
	Loc 1	Loc 2	Loc 3	Loc 4	Loc 5	Loc 6		
Variant 1 – All Chillers Operating	44.8	54.8	53.8	55.6	52.5	53.3	75	55

The estimated sound pressure levels seen in TABLE 3 show that sound levels are expected to meet code for all worst-case conditions. Furthermore, Additional calculations were completed to show that code requirements will also be achieved for generator testing.

* * * * *

Please contact me directly if you have any questions or comments regarding this report, at akinzie@acentech.com or 215 245 5893.

Sincerely,



Andrew Kinzie, INCE Bd Cert.
Senior Consultant

Encl: Ambient Noise Survey Data – Time History
Noise Contour Plots

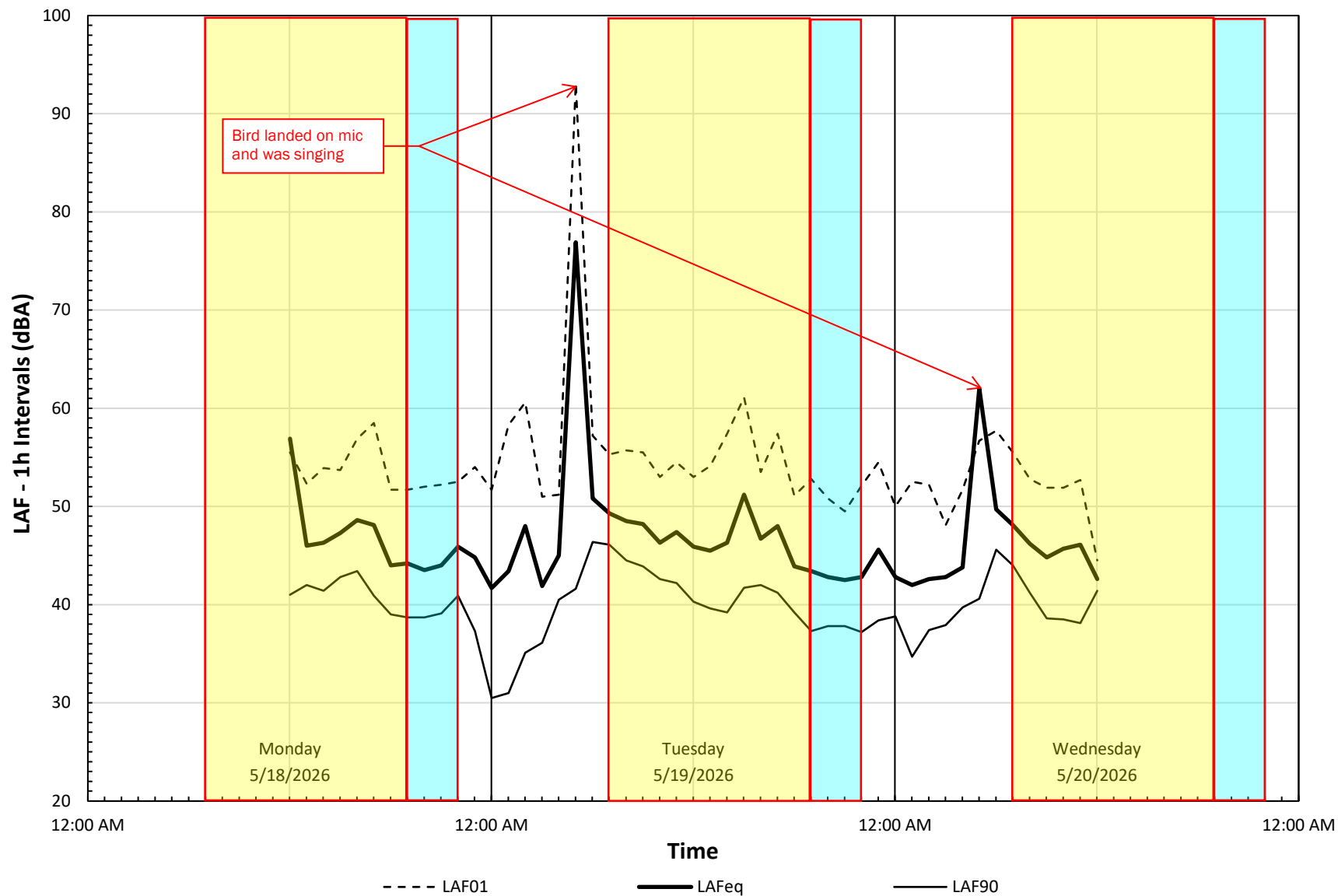
Sound Levels Measured at Location 1

South Side Of Property

Daytime (7am-7pm)

Evening (7pm-10pm)

Nighttime (10pm-7am)



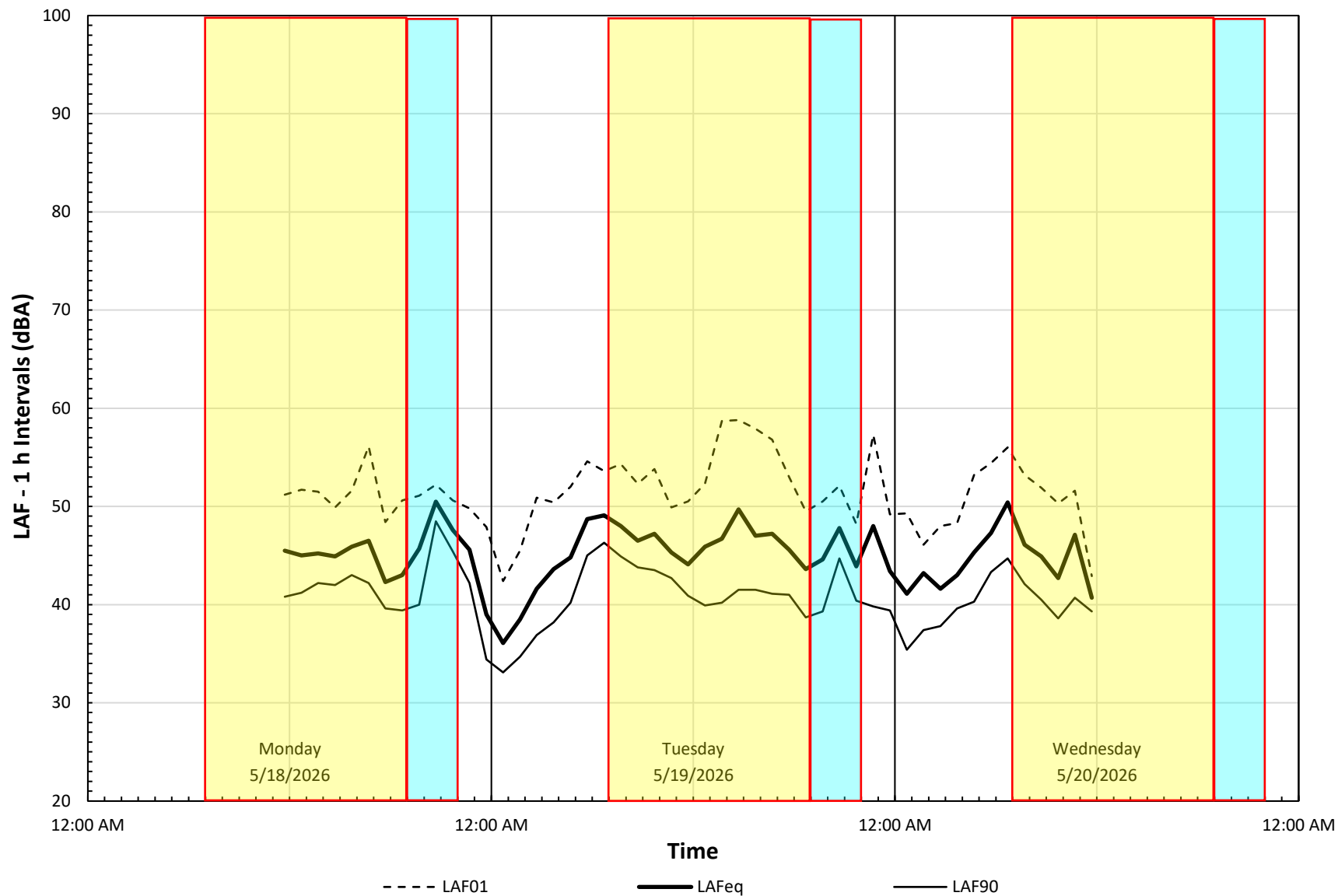
Sound Levels Measured at Location 2

West Side Of Property

Daytime (7am-7pm)

Evening (7pm-10pm)

Nighttime (10pm-7am)



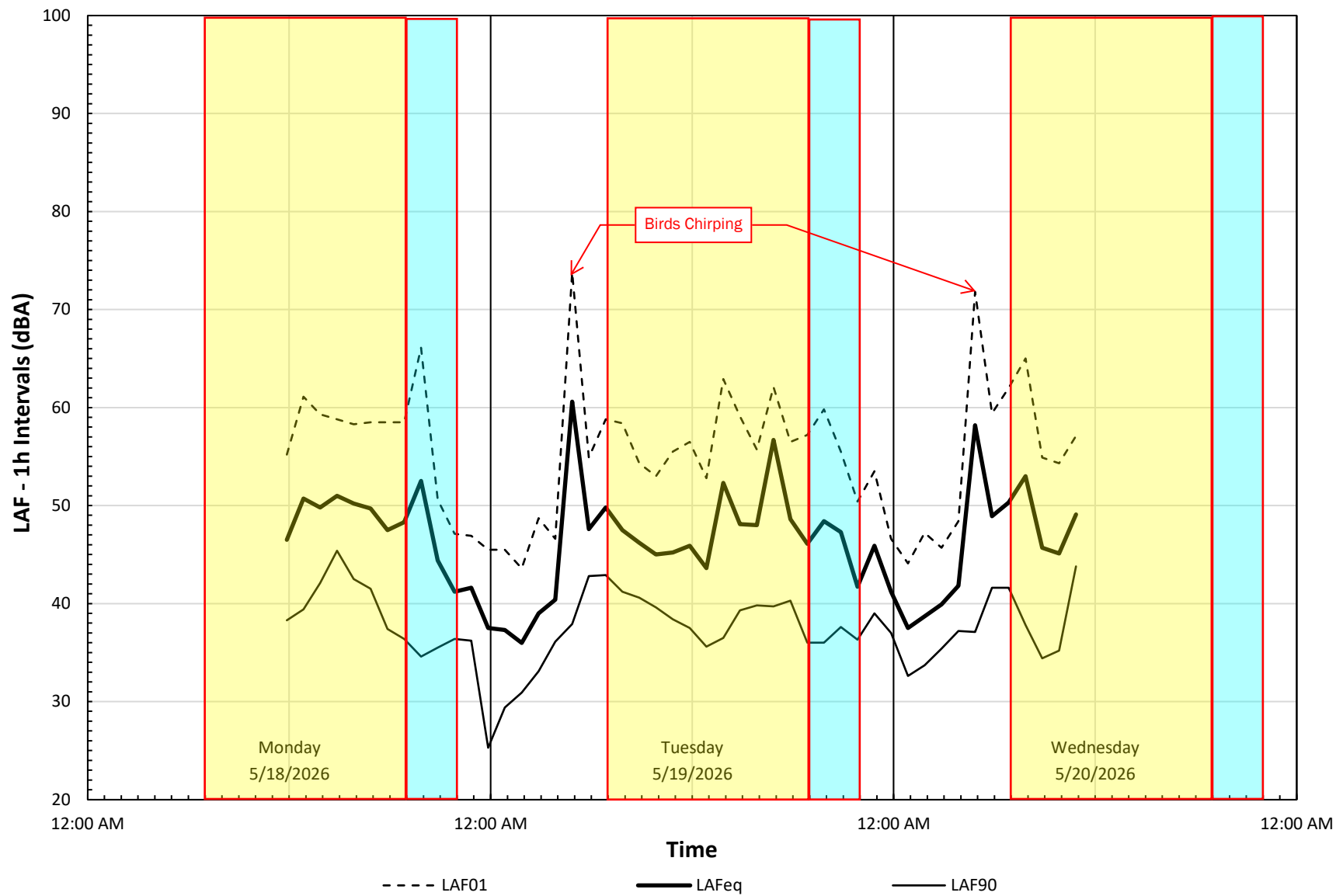
Sound Levels Measured at Loction 3

North Side Of Property

Daytime (7am-7pm)

Evening (7pm-10pm)

Nighttime (10pm-7am)



Variant 1 – All Chillers Operating

