

Town of Salisbury
Planning and Zoning Commission
Attn: Dr. Michael Klemens
27 Main Street
Salisbury, CT 06068

25 August 2025
PJ024-1440-L05

Subject: Wake Robin Inn – Brooks Acoustics Corp (BAC) comments on Aradev Application (2025-0287)

Dear Chairman Klemens and other Commission Members:

This letter provides comments by BAC to the subject Special Permit Application, with regard to acoustical and noise issues.

The Aradev application and the development plan (Ref. 1) contain serious errors and omissions.

As you know, the critical distinction to consider here is that this is an application for a Special Exception land use and not a use-by-right. In addition to standard zoning and code compliance requirements, the application must meet the more restrictive requirements of a Special Permit per the Zoning Code Section 800. This Special Permit Application must be compared to the current use and the existing conditions in the neighborhood in determining whether the requirements of the Special Permit are met.

Summary

It is the opinion of Brooks Acoustics Corp (BAC) that the Aradev Special Permit Application demonstrates serious errors and omissions with respect to noise and acoustical issues. Therefore, it is our opinion that the Application fails to meet the requirements of Section 800, specifically:

- Sec 803.2 – The use **shall not create a nuisance** to neighboring properties by noise.
- Sec 803.3 – “The proposed uses shall not unreasonably adversely affect the enjoyment, usefulness, and value of properties in the general vicinity thereof or cause undue concentration of population or structures.”

Some say that nuisance is only a subjective assessment. However, the Town Engineering Reviewer for acoustics, Herbert Singleton Jr., provided a definition in his letter of August 1, 2025 (Ref. 2):

“Nuisance implies a level of annoyance based on audibility”.

Based on these definitions, that audibility causes a nuisance, we conclude the following for the Wake Robin Inn.

- The only acceptable acoustical design criterion for the facility is that it is not audible to the neighbors.
- Audibility is measurable, simple to understand, and is easily demonstrated. You can hear it. Further, the audibility of noise caused by this development at the neighbor locations is predictable for the noise sources of human behavior, musical entertainment, parking lot traffic activity, deliveries, sanitation pickup, and construction, among others.
- The developer and their noise consultant have provided little to no scientific evidence that the proposed development *will not* be audible to the neighbors. To the contrary, all of the evidence presented indicates that this development will be consistently audible to the neighbors.
- Common sense and the perceptions of reasonable individuals indicate that the intense use proposed for this property in this very quiet and exclusively residential area will certainly be audible and thus impose a nuisance on the neighbors.
- The noise intrusions caused by the proposed development will have an immediate impact on the neighbors and will also have a cumulative effect over time, increasing annoyance.
- This intense use will cause the neighbors to have an *expectation of no relief* from intrusive noise.

Technical issues

Insufficient technical evidence based on acoustical engineering was presented by the Applicant to support the claim that the proposed development will not cause a noise nuisance.

It is inexplicable that the Applicant's acoustical engineer (Tocci) initially failed to use the proper metrics when evaluating the existing conditions for background sound, which he helped to develop with his partner, Bill Cavanaugh (Ref. 3). At first, Tocci used the **average** sound level (LAeq) rather than the **baseline** sound level (LA90). When challenged by the Town Reviewer, Tocci then disclosed the measured baseline levels (Ref. 4). However, the design target sound level remained unchanged by Tocci, and the likelihood of audibility was not addressed.

As Tocci knows well, since he personally applied these **noise audibility criteria** to musical entertainment venues for many years, the noise from identifiable, rhythmic music sources will be audible above the baseline sound level. Originally, Tocci applied a reduction of 5 dB to the average (LAeq) background to account for tonality, arriving at a design target of 32 dBA. However, after conceding to use the correct baseline background sound level (LA90), they then applied a 5 dB *increase*. This does not properly account for tonality, as Tocci admits. Using Tocci's own criteria (Ref. 3), at the baseline (LA90) + 5 dB sound level, the music will be "*sometimes audible*". This does not meet the no-nuisance standard, either individually or on a cumulative basis.

Also, Tocci's calculations for the Event space likely underestimate their noise emissions. The source noise music spectrum was not disclosed. Tocci mentioned a total level of 95 dBA, but party music varies and can be intermittently much higher, by 5 to 8 dBA or more. Therefore, the resulting noise at the neighbor locations will be higher, leading to a much greater likelihood of audibility.

Further, it is well known that party dance music contains **heavy bass content**. The bass content in the 63 Hz bass octave band is likely to be 10 to 20 dB higher than noted by Tocci. Low-frequency (bass) sounds travel much farther than mid-frequency (voice) sounds and are attenuated much less by building elements such as walls and windows. Therefore, this rhythmic bass and drum content will likely be audible at much farther distances and at many neighboring locations. Bass noise was mentioned as an issue by the Town's reviewer, stating, "*even if sound levels from music events are low, low-frequency sounds from drums and bass guitar may be detectable by abutters, especially at night when background levels are lowest.*" (Ref. 2) Bass noise was not addressed by Tocci, even in his second submission to the PZC (Ref. 4).

To account for this **bass phenomenon**, Tocci should have included in his analysis at least the **metric dB(C)** for overall sound level, which accounts for the low-frequency content of the noise. Further, Tocci did not present any low-frequency baseline ambient sound data at the neighbor locations for comparison with low-frequency source data from the Event space or from any other activities.

In addition, the original Aradev Application shows **interiors** for the Event Building and other food and beverage spaces that appear to consist of all **hard, sound-reflecting surfaces**. This will cause a noise buildup inside these spaces, making the noise emissions to the outside that much higher. This could be as much as 5 dB. The interior design of the event space and the food and beverage space was not accounted for by Tocci.

Most importantly, the Applicant states that the **windows and doors** of the Events Building will be closed by 9 pm. This suggests that windows and doors may stay open until 9 pm. There will be significant sound leakage from the Event Building before then, making the noise levels more similar to the high levels from a tented event rather than a sealed building. Tocci calculated high noise levels at the neighbors' properties for the tented events, as presented on August 19 to the PZC (Ref. 5).

Therefore, the Event Building is **guaranteed to be audible and intrusive** to the neighbors.

Other technical omissions in the Applicant's original report, noted by the Town reviewer, include the lack of any information on **construction noise**. In Tocci's subsequent letter of August 6, 2025 (Ref. 4), he recommends that "*prior to the issuance of a zoning permit, the construction manager prepare a Construction Noise Control Plan*". This statement concedes that construction noise is likely to cause a nuisance and must be mitigated. However, for such a small site, it is highly unlikely that construction noise can be eliminated to the extent needed to avoid audibility.

It is important to note that the scope of the planned construction activity **far exceeds** that of the **cell tower** in terms of size, duration, and magnitude. This includes the extent of land coverage and activity, the number, size, and scale of equipment, construction personnel, and the overall length of the project, all of which will pose significant hardships on the neighborhood.

Additionally, the effects of the **noise nuisances caused by human behavior** were not properly addressed by the Applicant (Tocci) in the original Application or in subsequent correspondence.

This proposal creates numerous potential sources of human behavior-caused noise nuisances.

These noise sources are neither present in quantity nor in intensity during the current use as a quiet country inn. The Application requests up to 24 events per year with more than 100 people (each event lasting an entire weekend), with no limit on the number of events involving fewer than 100 people.

The human behavior noise sources associated exclusively with the proposed expanded Event business model include:

- People and vehicles arriving at the event (doors opening and closing, alarms engaging and disengaging)
- People going outdoors during the event to smoke or otherwise congregate (doors opening – loud conversations)
- People and vehicles leaving the event (doors opening and closing, alarms engaging and disengaging)
- People in the 2000 square foot "cottages" hosting after-gatherings and parties
- Large gatherings at other outdoor locations – pool, food and beverage

There is **no practical way to mitigate** the noise nuisance from these human-behavior sources. These disturbances are likely to occur frequently and consistently with each event. Compliance with CT noise regulations is not sufficient. The development will be audible and so will be a nuisance to neighbors, violating the Special Permit requirements.

It is crucial to acknowledge that these audible **human behavior-related disturbances** will individually and collectively adversely impact the surrounding neighborhood, leading to increasing annoyance with each incident.

Perception issues

Along with technical issues related to noise sources, there are concerns about how the **noise** from the Wake Robin Inn is **perceived by nearby residents**. These issues involve how people hear the sound and their judgment of its impact in context. A scientific field that studies these perceptions has been evolving for about 20 years, called **Soundscape Analysis**.

In soundscape analysis, understanding how sounds are perceived within their context is the main focus, and the approach involves using the knowledge of those called the "**local experts**." These individuals live, work, and play in the area being studied and are **stakeholders in the community**. They have the best insight into how sounds are perceived and what they mean within their environment, whether urban or rural. Soundscape analysis can also produce objective numerical and statistical data about perceptions through community surveys. This information helps observers better understand how sound affects the lives of residents and others in the area (Ref. 6).

Clearly, this Application has garnered the attention of the public, including Town residents and neighbors, which was expressed in several ways, including a petition with at least 450 signatories and attendance at the PZC public hearings of nearly 100 persons. These data constitute a Soundscape analysis of the proposed development.

This soundscape analysis shows that most Lakeville residents have **predominantly negative expectations** regarding the proposed Wake Robin Inn development. This is because they **expect excessive noise** from both the construction and operation of the project. The negative perception is justified because the Applicant lacks a comprehensive plan to address the noise issues.

The Applicant, in Tocci's letter of August 6 (Ref. 4), recommends that sound testing be conducted to verify compliance with their design targets measured in decibels. This completely misses the point. First, the **real criteria** are not the decibel targets, but **the audibility** of the project at neighboring locations. Second, testing to check compliance would happen after the fact, making further mitigation difficult or impossible. Therefore, the testing suggestion is pointless and fails to protect the neighborhood from the upcoming nuisance.

Conclusions

As the Special Permit requirements clearly state that the special use **may not create a nuisance** for the neighbors, this strict standard shall be applied to the application, its plans, and designs.

The nuisance standard is acknowledged by the Applicant as the goal for the project. Audibility is the accepted criterion for causing a nuisance.

It is incumbent upon the Applicant to demonstrate that every feature of the proposed special use is planned to comply with the strict standards of the Zoning Regulations.

To date, the Applicant has not demonstrated that they have met the nuisance standard. Further, it is unlikely that this intense project on a parcel that is too small would meet the nuisance standard.

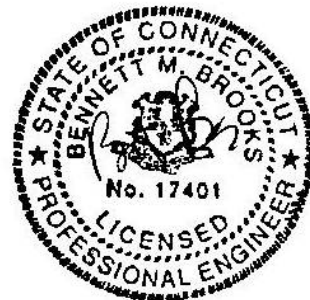
Thank you for your careful consideration of this matter.

Please contact me if you have any questions concerning these findings.

Very truly yours,
BROOKS ACOUSTICS CORPORATION



Bennett M. Brooks, PE, FASA, INCE
President



Attachment: References

References

- Reference 1: #2025-0278 / Wake Robin LLC & Ms. Serena Granbery (ARADEV LLC) / 104 & 106 Sharon Road & 53 Wells Hill Road / Special Permit for Hotel (Section 213.5) / Map 47 / Lot 2 & 2-1 Application submitted April 29, 2025 – including Tocci Letter
- Reference 2: Herbert Singleton Jr., Cross-Spectrum Acoustics, Letter to Abby Conroy, Land Use Director, Town of Salisbury, Project Reference: J2025 -1540 – Peer review of Wake Robin Inn Noise Study; dated August 1, 2025.
- Reference 3: Cavanaugh, W. & Tocci, G., “Criteria for community acceptance of outdoor concert sound ... a progress report of continuing research.” Proceedings of Inter-Noise 2002. Dearborn, MI. August 2002.
- Reference 4: Greg Tocci, Cavanaugh-Tocci, Letter to Dr. Michael Klemens, Chairman, Planning & Zoning Commission, Town of Salisbury, Response to Cross-Spectrum Acoustics Letter dated August 1, 2025, re: PZC Application #2025-0287: Wake Robin Inn Redevelopment; dated August 6, 2025.
- Reference 5: Aradev slides presented to the Salisbury, Connecticut, Planning & Zoning Commission, Public Hearing #4: August 19, 2025, COMMENT RESPONSE – ACOUSTICS IMPACT.
- Reference 6: Soundscapes: Humans and Their Acoustic Environment, Brigitte Schulte-Fortkamp, André Fiebig, Joseph A. Sisneros, Arthur N. Popper, Richard R. Fay, Editors, Springer Nature Switzerland AG, 2023. <https://doi.org/10.1007/978-3-031-22779-0>