

ACOUSTIC REVIEW

Delano Hotel Redevelopment

1685 Collins Avenue, Miami Beach, FL

David Molho

Partner, Head of Acoustics – WSDG Miami

On Behalf Of:

**Ritz-Carlton
South Beach**

Nearby Property

Reviewing:

- Direct Sound LLC (February 2026)
- AV Docs – Sound Investment Audio
- Arpeggio Peer Review (March 2026)
- Direct Sound LLC Review Letter (March 2026)
- Arpeggio Additional Peer Review (March 2026)
- Miami Beach Planning Staff Report (March 2026)

"The documents do not show how the sound generated at the Delano will impact the Ritz-Carlton."



No sound level predictions



No propagation analysis



No impact analysis on
neighboring hotel

PROJECT OVERVIEW

Venues Proposed at the Delano Hotel

GROUND FL

Pool Deck

CRITICAL

Primary outdoor entertainment
Distributed audio + subwoofers

4TH FLOOR

4th Floor Pool Deck

HIGH CONCERN

Outdoor entertainment zones
Elevated position – direct exposure

GROUND FL

Gigi Rigolatto

MODERATE

Indoor dining + outdoor dining
1st floor pool deck adjacency

INTERIOR

Rose Bar & Lounge

LOW CONCERN

Enclosed interior venue
Not acoustically critical

4TH FLOOR

Mimi Kakushi

HIGH CONCERN

Outdoor dining
DJ / live music programming – Elevated position

SYSTEM SCALE

What Kind of System Are We Talking About?

System Type	Speakers	Subwoofers	Noise Impact
Background Music (Hotel Lobby / Restaurant)	8–16	None	LOW
Lounge / Upscale Bar	12–24	2–4	MODERATE
High-Energy Entertainment (DJ / Live Music)	20–40+	6–12+	HIGH
→ PROPOSED DELANO (All Venues Combined)	~50–60	~10–15	SUBSTANTIAL

★ This is not a background music system.

SPEAKER INVENTORY

Entertainment Professional Audio System

GROUND FLOOR – Beach Pool Deck

Funktion-One F101.2WR

Surface loudspeakers

~20–30 units

6'–8' AFF, façade + cabana mounted

Funktion-One F124 / BR118

High SPL capable Subwoofers

~8–10 units

Floor, millwork & ELEVATED PLANTERS

4TH FLOOR – Mimi Kakushi / Pool Deck

One-Systems 118HSB + Distributed Audio System

DJ / Live Music Capable

~30-37 units

Floor, wall and ceiling mounted, in-ground / direct burial

CRITICAL CONDITION

Several subwoofers are installed within ELEVATED PLANTERS throughout the ground-floor site, plus subwoofers located at the 4th Floor.

Elevated subwoofers = direct line-of-sight propagation toward upper-floor Ritz-Carlton bedrooms.

COMBINED ESTIMATE: ~50-60 speakers | ~10-15 subwoofers

Funktion-One Sound System at Nightclubs



which clubs and hotels in miami have funktion one speakers?



AI Mode **All** Images Forums Shopping News Videos More ▾ Tools ▾

Results for **Miami, FL** · [Choose area](#) ⋮

◆ AI Overview

In Miami, top venues featuring Funktion-One sound systems for premium audio include the **24-hour nightclub E11EVEN**, the iconic **LIV Nightclub at the Fontainebleau**, and **Komodo lounge**. These venues utilize Funktion-One to provide high-fidelity sound, often installed by specialists like Sound Investment to ensure an immersive experience. [Sound Investment AV +3](#)

Clubs & Lounges with Funktion-One Systems [🔗](#)

- **E11EVEN Miami:** Features a custom Funktion-One Resolution 6 sound system.
- **LIV Nightclub:** Integrates Funktion-One speakers with advanced amplifiers for high-energy sets.
- **Komodo:** A restaurant/lounge that uses Funktion-One loudspeakers throughout the venue.
- **Mansion (Historical):** Formerly used Funktion-One subwoofers for its renovations.
- **Ultra Music Festival:** The Resistance MegaStructure has utilized Funktion-One Vero sound systems. [Sound Investment AV +5](#)

LIV Nightclub | Sound Investment AV

LIV Nightclub's audio system is designed to deliver an unparalleled auditory experience...

[Sound Investment AV](#) ⋮



FontaineBleau Resort | Sound Investment AV

Komodo. Komodo brings its Southeast Asian-inspired cuisine and vibrant atmosphere to the...

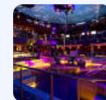
[Sound Investment AV](#) ⋮



Miami's E11even Nightclub | PLSN

Aug 7, 2014 — Aside from its 24-7 policy and genre-blurring business model, E11even...

[PLSN](#) ⋮



Show all

LIVE MUSIC

Live Jazz: Big Band vs Small Ensemble

BIG BAND BRASS SECTION: TRUMPETS, SAXOPHONES, TROMBONES, TUBAS + RHYTHM SECTION (DRUMS, BASS, GUITAR, PIANO)



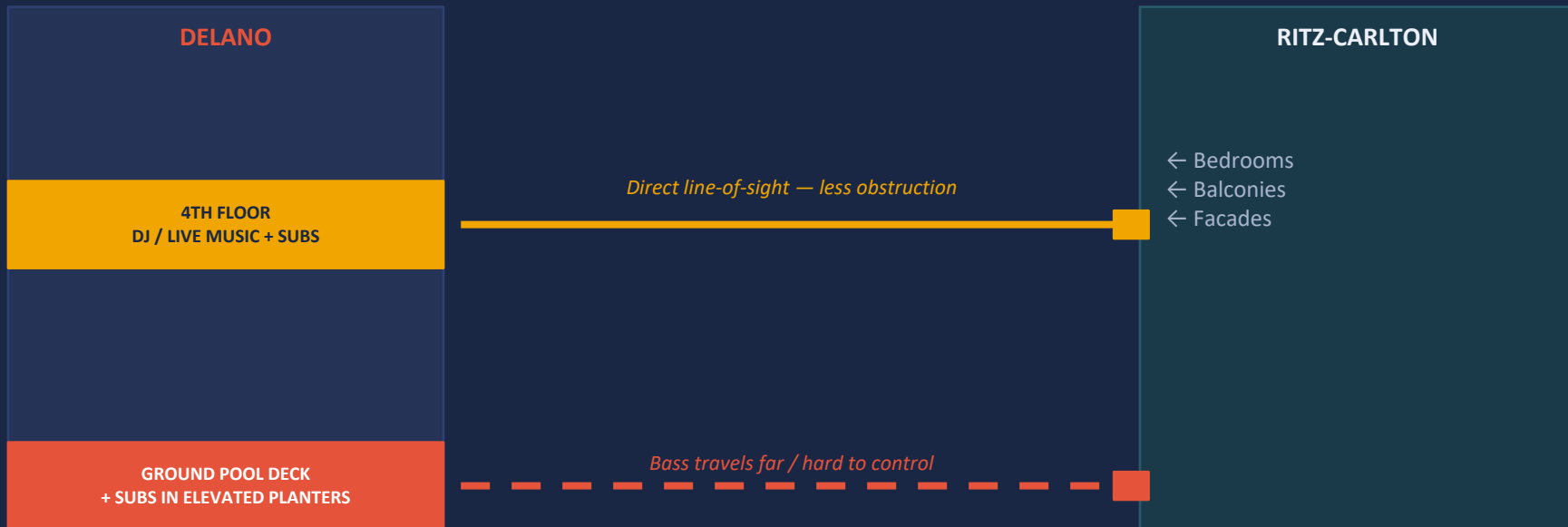
ENSEMBLE: DRUMS, BASS, PIANO, GUITAR, TRUMPET, SAXOPHONE



Sound levels can vary from 75 dB to over 100 dB depending on band configuration and setlist intensity

WHY THIS MATTERS

Acoustics: Elevation + Bass = Amplified Risk



STREET / OPEN SPACE

Elevated = fewer barriers

Bass travels far

Multiple venues = cumulative

Direct bedroom exposure

5 Things Missing from the Submitted Documentation

01

No Predictive Modeling

No analysis showing where sound will travel or how loud it will be at neighboring properties

02

No Sound Levels at Ritz-Carlton

No predicted levels at the neighboring hotel façades or guestroom locations

03

No Bass / Low-Frequency Assessment

Subwoofers - including elevated units - not evaluated for long-distance propagation

04

No Evaluation of Cumulative Effect of 6 Venues

No analysis of what happens when multiple outdoor areas operate simultaneously.

05

No 4th Floor Source Analysis

4th floor pool deck sources not assessed for direct line-of-sight impact on adjacent hotel

City of Miami Beach Noise Ordinance

The applicant must DEMONSTRATE that the system won't disturb neighbors.

A noise attenuation plan which addresses how noise will be controlled to meet the requirements of the noise ordinance is required.

Without Modeling — These Risks Are Unresolved

Elevated 4th Floor Sources

HIGH

Direct exposure — no shielding toward Ritz-Carlton bedrooms

Subwoofers Bass Propagation

HIGH

High SPL capable raised bass sources increase line-of-sight propagation to upper floors

Broad Coverage + Spill

MODERATE

Dense distributed layout covers entire site — increases environmental spill

Multiple Simultaneous Venues

HIGH

Combined operation of Ground floor + 4th floor not evaluated

Coastal / Open Environment

MODERATE

Coastal acoustics — less natural attenuation than urban canyon settings

Late Night Operation

CRITICAL

Outdoor music permitted to midnight — impacts nighttime "plainly audible" threshold

Without predictive modeling, there is no basis to confirm compliance with the Miami Beach Noise Ordinance at the Ritz-Carlton.

A Proper Acoustic Simulation Before Approval

1

3D Sound Propagation Modeling

ISO 9613-2 or equivalent — predict how sound travels across the site

2

Full-Spectrum Source Data

Including subwoofer characterization (not assumed 'ambient')

3

A-weighted & C-weighted Analysis

Both overall level and bass content evaluated separately

4

All Sources Modeled Separately + Combined

Ground floor outdoor venues, 4th floor outdoor venues - individual and simultaneous

5

Receiver Locations at Ritz-Carlton

Façades, bedrooms balconies, elevations matching source heights

Standard practice. Typical due diligence. Preventative — not reactive.

CONCLUSION

The Bottom Line



The current acoustical submission does NOT demonstrate compatibility with adjacent properties



No predictive modeling = no technical basis for approval



Once built — enforcement is reactive, not preventative



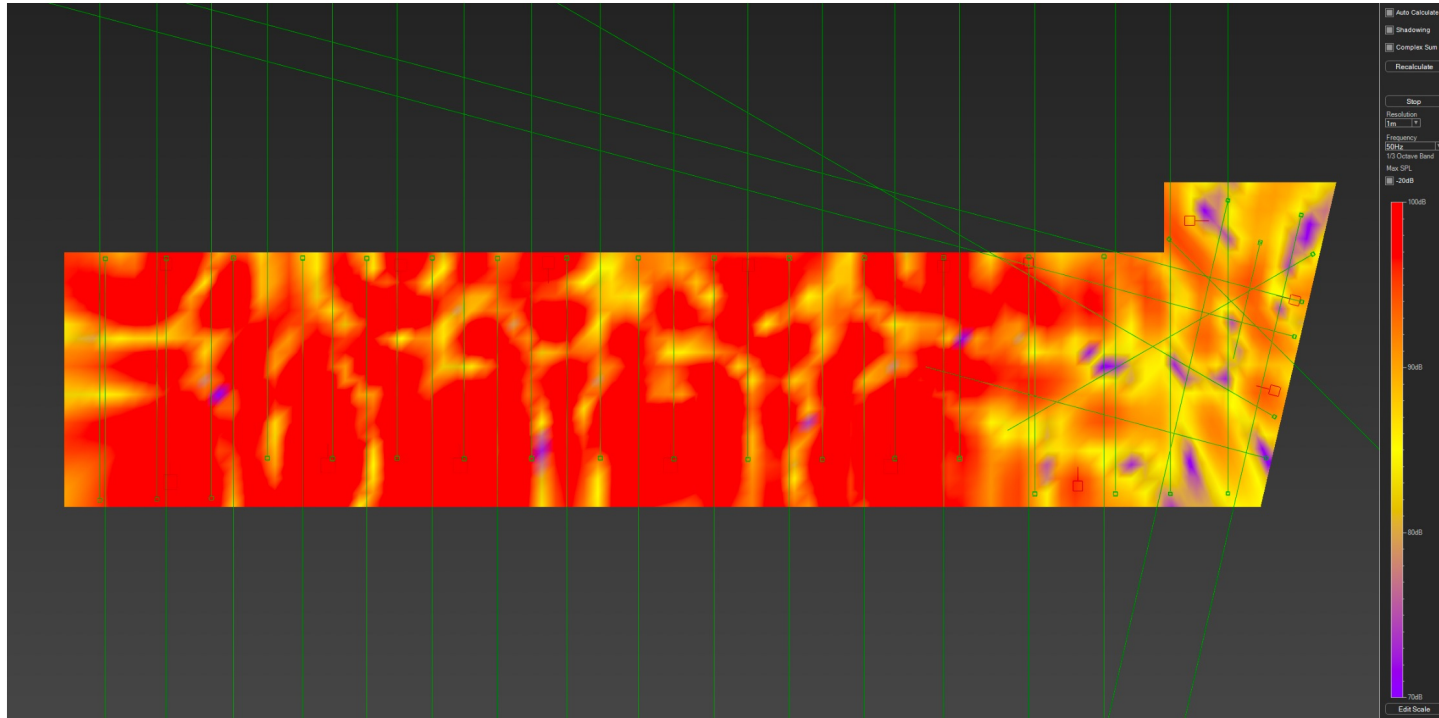
Acoustic simulation is standard, achievable, and required before this project is approved

"Right now, we are being asked to approve a sound system without knowing where the sound will go and how loud that sound will be."

APPENDIX

Low Frequency Heat Map: Seriously Disturbing

Delano Beachclub - 50Hz



APPENDIX

Low Frequency Heat Map: Seriously Disturbing

Delano Restaurant & Terrace - 63Hz

