

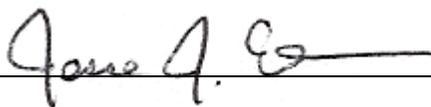


**Peer Review of Sound Study for  
1509-1515 Washington Avenue  
The Cloud One Hotel  
PB 23-0625**

Prepared for:

**Miami Beach Planning Department  
1700 Convention Center Drive  
Miami Beach, Florida 33139**

Prepared by:

  
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**Jesse J. Ehnert, INCE Bd. Cert., Principal  
Arpeggio  
1947 Aspen Drive, NE  
Atlanta, Georgia 30345  
[jehnert@arpeggiollc.com](mailto:jehnert@arpeggiollc.com)  
404-277-6528 (Direct)**

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## **1 Introduction**

This report documents a peer review of an acoustic study conducted for the City of Miami Beach related to an application for a Conditional Use Permit for a new hotel with outdoor pool and rooftop restaurant at 1509-1515 Washington Avenue. The reviewed report, prepared by Criterion Acoustics (CA) and dated September 1, 2023, describes the project, acoustic measurements made in the area, and analyses based on computer modeling of the potential impact of the pool and rooftop restaurant on the environs.

## **2 Project Description**

The proposed new seven-story hotel, The Cloud One, would have 238 units and be located on the east side of Washington Avenue north of 15<sup>th</sup> Street. The primary noise sources addressed in the report are the pool deck atop the second floor and the rooftop restaurant/lounge on the seventh floor. Both venues are at or near the southwest corner of the hotel. The pool deck is to be open 8 am to 8 pm and the outdoor portion of the rooftop restaurant is to be open 7 am to midnight.

The nearest residential property is the Campton Apartments, immediately to the south of the property at 1455 Washington Avenue. Another residential property is located just to the south of that at 1447 Washington Avenue. Portions of both of these buildings have direct line of site with the pool deck and rooftop restaurant.

No sound system has been designed yet but the sound study report advises the use of distributed loudspeakers mounted low with bass drivers no larger than 6" and no subwoofers. The sound study and Letter of Intent both indicate that no outdoor entertainment is being proposed, however, page 4 of the Operations Plan does cite the presence of "local DJs." This contradiction should be clarified.

According to the Letter of Intent, noise due to operations such as loading, delivery, and sanitation will be confined to interior areas. The sound study was silent on those sources.

## **3 Discussion**

The CA sound study report details a site noise survey performed on the evening of Thursday, August 31, 2023 between 9:30 pm and 11:30 pm. Spot measurements were taken at seven locations, the majority of which were along Washington Avenue. Of those, the most salient were M1 and M2 due to their proximity to the two residential developments south of the hotel site. Both of these measurements yielded an L<sub>90</sub> of 59 dBA. While this may be an appropriate estimate for the ambient sound level at 1447 Washington Avenue. It is very likely that the ambient level at residential facades at the Campton Apartments at 1455 Washington Avenue are lower due to the fact that the apartment's façade is approximately 70' away from the edge of the road. It is likely that the L<sub>90</sub> at the west façade of the Campton Apartments is in the mid 50s (dBA). This is the level that modeling results should be compared to.

The report also describes the modeling of anticipated future sound from the pool deck and rooftop restaurant. The modeling was performed using Noisetools dBMap software and we have no basis to question its implementation or results. This model predicts a sound level at the second story of the northwest corner of the Campton Apartments

(approximately 50' from southwest corner of the hotel where the pool deck is) of 57 dBA. Given our earlier assertion that the ambient at this location is likely in the mid-50s, the sound level from the hotel would be above that ambient.

Table i in the report presents suggested  $L_{eq}$  limits of 73 dBA (77 dBC) and 75 dBA (79 dBC) for the pool deck and rooftop lounge, respectively. These levels are based on presumed "normal" human voice sound levels and loudspeaker emissions as given in Tables ii and iii, respectively. Table ii, in particular, identifies a sound power level of 68 dBA which corresponds to a speaking sound level of approximately 60 dBA at a distance of 3'. We contend that this is an inaccurately low estimate of speech sound levels in an environment such as this. If the background sound level from music on the rooftop is 73 to 75 dBA and people try to communicate at a level of 60 dBA, they will not be heard. In fact, in a 73 to 75 dBA environment as is being suggested, people would have to speak very loudly or shout to be heard.

Given these facts, we recommend that consideration be given to modeling a lower background music sound level that could actually be reasonably characterized as background and which would allow for people to, in fact, speak at normal volumes. Such a level would be at least 10 to 15 decibels lower (i.e., 60 to 65 dBA or lower). At this level, patrons would actually be able to be heard and understood fairly well at normal speaking volumes. If more accurate background music sound levels are implemented then it is likely that sound levels at the nearest residential properties will actually be below measured or estimated background sound levels at those locations.

#### **4 Conclusions**

In conclusion, we recommend that, first, it is confirmed that DJ entertainment will not be present at the hotel as indicated on page 4 of the Operations Plan.

Additionally, we recommend that significantly lower music sound level limits be targeted on the pool deck and rooftop lounge. The report offers limits of 73 to 75 dBA but such a music sound level would require patrons to speak loudly or shout to be understood. We feel that a music level of 60 to 65 dBA or lower would be more conducive to normal conversation and consistent with the descriptors of "background" and "ambient." Furthermore, we recommend that noise from the ground floor restaurant patio along Washington Avenue be included if there are to be loudspeakers there.

Beyond the aforementioned, we agree with several recommendations given by CA in their report. These include the use of small bass drivers in a distributed speaker system mounted low to the ground and the absence of subwoofers. We also agree with the use of a digital tamper-resistant sound level limiter with no local operational access. The report advises that this limiter be configured after on-site sound level calibration. We advise that this calibration include residential units at the northwest corners of 1447 and 1455 Washington Avenue. This is especially critical at the corner units at 1455 Washington Avenue which appear to be merely approximately 50' from the pool deck and, as such, will be especially vulnerable to music and activities at the hotel. Calibration should also address and establish C-weighted (dBC) in addition to A-weighted (dBA) sound levels so that low-frequency bass is controlled.