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March 22, 2016

Mr. Alejandro Garavito
Senior Planner
Miami Beach Planning Department
1700 Convention Center Drive
Miami Beach, Florida 33139

Re: 601-685 Washington Avenue (PB 2320) Sound Study Peer Review

Dear Mr. Garavito:

Please find enclosed our peer review of the report prepared by The Audio Bug dated February 10, 2016 related to potential noise impacts from a proposed rooftop pool deck at 601-685 Washington Avenue in the City of Miami Beach. Please feel free to contact me if you have any questions or need anything further at this time.

Sincerely,

Jesse J. Ehnert
Principal



**Sound Study Peer Review for the Proposed
Rooftop Pool Deck and Restaurant Entertainment at
601-685 Washington Avenue,
Miami Beach, Florida
(PB 2320)**

Prepared for:

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

March 22, 2016

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1 Introduction

This report documents a peer review of a noise impact study conducted for the City of Miami Beach related to a request for a Conditional Use Permit being submitted for a Neighborhood Impact Establishment being proposed for 601-685 Washington Avenue. The noise impact study specifically addresses potential noise impacts due to music being played at the rooftop pool deck. The reviewed report, prepared by The Audio Bug and dated February 10, 2016, describes the environs and summarizes results of a noise survey conducted on site as well as computer modeling results.

2 Project Description

The property occupies the east side of Washington Avenue between 6th and 7th Streets. The proposed rooftop pool deck would occupy the north end of the block and would feature live and DJ entertainment. The location for the interior restaurant where entertainment level music is being proposed was not given in the report.

The property is located amid mostly commercial properties. The nearest residential receptor was identified in the report as being the Arcadia House Condominium across Washington Avenue. Its façade is located approximately 240' from the location of the proposed pool deck. This condominium is three stories in height and is offset from Washington Avenue by approximately 75' to 100'. In addition to this condominium, there appears to be a residential property, Collins Tower Condominium, at an approximately equal distance to the northeast as well as a residential building at the northwest corner of Washington Avenue and 7th Street. Aside from showing these properties in the "Property Records" portion of the report, no mention is made of them.

The report indicates that entertainment on the pool deck would end at 8 pm and that background music could persist beyond this time until closing. No closing time was listed in the report. Entertainment levels inside the restaurant would cease at 1 am.

3 Comments

The sound study report prepared by The Audio Bug specifically addresses the existing environs, discusses results of a sound survey conducted on site, and provides computer-generated predictions of sound levels due to operation of a proposed sound system at the rooftop pool deck. Certain details are lacking in the report, however, which prohibit one from making a judgment concerning potential acoustic impact on the environs. Those details, enumerated below, deserve further consideration and elaboration.

3.1 Site Sound Survey

While the two sets of measurements—one of 5-minute duration at the southeast corner of Washington Avenue and 7th Street and one of 30-minute duration along Washington Avenue—provide some information about the soundscape in the vicinity, they are not sufficient to draw conclusions related to impact upon the Arcadia House Condominium.

First, while A-weighted decibels are a ubiquitous metric used to describe sound levels both within buildings and in the environment, where music, particularly that produced by live musicians and DJs, is a source, C-weighted levels (dBC) should be considered as a complement to A-weighted levels. This is due to the fact that C-weighted levels more

accurately characterize sound with significant low-frequency content. Should there be any nuisance issues in this case, it is likely that they would be from low-frequency sound (e.g., thumping bass).

Second, while knowledge of ambient sound levels between 11:25 pm and approximately midnight are very useful, we do not know what closing time would be at the rooftop pool deck. The report indicates that background music will be played between 8 pm (when entertainment ends) and this unspecified closing time. If this background music is loud enough, and the ambient level is low enough, audibility may be possible.

Finally, and most importantly, no measurements were made at or near the façade of the Arcadia House. An L_{90} of 57.4 dBA was reported along Washington Avenue; however, the façade of the condominium is set back approximately 75' to 100' from Washington Avenue. It is quite likely that ambient levels that would tend to mask sound from the rooftop pool deck would be 5 to 10 decibels lower at the building façade than along Washington Avenue, assuming that traffic is the most prominent source, as the report states that it is. It is this lower sound level at or near the building façade that should form the basis of any audibility or impact assessments.

3.2 Prediction of Rooftop Pool Deck Impact on Surroundings

The computer model results provide a very informative visual representation of the propagation of sound from a hypothetical sound system comprising 20 loudspeakers distributed about the pool deck. The model assumes a program level of 82 decibels (unweighted), presumably at 10'. What is unclear is whether this system will, in fact, be the system that is installed and whether this system and its parameters will be implemented, not only for background music, but also live and DJ entertainment. If not, then one or more supplemental models would need to be developed for those scenarios.

Additionally, while we have no reason to question the results of the modeling, the conclusions drawn from it would need to be adjusted in light of our earlier point concerning what the actual sound levels are at the condominium façade. In other words, modeling results should not be compared to an L_{90} of 57.4 dBA measured near Washington Avenue when assessing impact on the condominium. They should, instead, be compared to the likely lower ambient (L_{90}) sound level at the condominium, some 75' to 100' away from Washington Avenue. In fact, the report predicts a level, from the sound system, of approximately 62 dBA at the condominium façade. This is higher than the 57.4 dBA L_{90} near the street. It would be even more prominent against the likely lower ambient level at the condominium.

In addition to this, the figure showing predicted sound system levels indicates levels in the low 70s (dBA) at a distance of 100', near Washington Avenue. This is significantly over the L_{90} of 57.4 dBA measured in this area. This is salient given the fact that the Miami Beach noise code states the following:

“The using, operating, or permitting to be played, used or operated any radio receiving set, television set, musical instrument, phonograph, or other machine or device for the producing or reproducing of sound in such manner as to disturb the peace, quiet and comfort of the neighboring inhabitants, or at any time with louder volume than is necessary for convenient hearing for the person or persons who are in the room,

vehicle or chamber in which such machine or device is operated and who are voluntary listeners thereto. The operation of any such set, instrument, phonograph, machine or device between the hours of 11:00 p.m. and 7:00 a.m. in such manner as to be plainly audible at a distance of one hundred (100) feet from the building, structure or vehicle in which it is located shall be prima facie evidence of a violation of this section.”

3.3 Analysis Regarding Restaurant

The report briefly mentions an interior restaurant where entertainment level music is being proposed. However, aside from this reference, no other information is given. In order to assess potential impact, one would need information such as restaurant location, enclosing construction, anticipated interior sound levels, and an estimate of sound transmission through any intervening building components.

4 Conclusions

The sound study report prepared by The Audio Bug provides valuable information but lacks the information necessary from which one can draw a conclusion that there will be no impact upon adjacent areas, particularly the Arcadia House Condominium (but also the Collins Tower Condominium to the northeast and residential building at the northwest corner of Washington Avenue and 7th Street). In fact, data presented in the report seems to imply the opposite with respect to the Arcadia House, when considered in the context of the points contained herein, that sound from the rooftop pool deck will be audible at the condominium and will exceed ambient levels (thus, be audible) at a distance of 100' from the source. Additionally, no information is given related to proposed entertainment level music inside an interior restaurant.