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March 27, 2020

Mr. Ian G. Bacheikov, Esq.
Akerman LLP
98 Southeast Seventh Street | Suite 1100
Miami, FL 33131

Subject: Acoustical Engineering Study – Pink Taco Restaurant Revised Sound Study

Reference: Conditional Use Permit Application for Outdoor Entertainment Pink Taco Restaurant – 1200 Ocean Drive, Miami Beach. FL 33139

Dear Mr. Bacheikov:

As requested, Acoustic Sonic Inc. (ASI) conducted an acoustical engineering study to evaluate the potential sound emissions from proposed outdoor speakers to be located at the Pink Taco Restaurant, 1200 Ocean Drive in Miami Beach. The potential impact that those sounds may have on the surrounding neighborhood was evaluated.

This study addresses sound traveling upward and to the adjacent properties to the north and south, as it may affect the short term rental units above the restaurant, and the neighboring hotel properties. Also addressed are potential mitigation techniques for ambient sound in the outdoor dining area that can be implemented as potential conditions in the conditional use approval.

An ambient baseline sound survey was conducted for this study from various points around the restaurant, as listed in Table 1 below. The survey test positions were conducted from the same locations as the ambient baseline sound survey. This study was conducted in conformance with accepted standard test and analysis methods, specifically American National Standard ANSI S12.9 and ASTM designation E 1503. Measurements were obtained with a standard frequency weighting and frequency filtered by third octave band. The ambient baseline sound level from the 2nd floor balcony above the outdoor dining area was 60 dBA, included contributions by local road traffic, aircraft, surf, voices and the other activities occurring near the site.

The sound levels due to the proposed outdoor speakers are expected to be minimized by the sound control design features which are incorporated into the building. An acoustical analysis was conducted which accounts for the sound control design features which are included in the

facility.

The acoustical engineering analysis indicates that the expected sound level at the 2nd floor balcony above the outdoor dining area will be maintained within the existing background sound levels due to the beneficial properties of the proposed mitigation features, such as level limiters on the speaker systems.

Based on this analysis, it is the opinion of ASI that with a reasonable degree of engineering certainty the proposed outdoor speakers will have **no negative impact** on nearby residences or lodging accommodations.

Facility sound management program

A facility sound management program was developed. This program has one major element, which is designed to reduce the potential for impact on the surrounding residences.

The proposed outdoor loudspeakers will be installed with sound level limiters set for a maximum of 70 dBA. This low level will ensure that music from the outdoor speakers will not exceed ambient levels at a distance, including at the units above. It will also discourage loud, elevated speech levels from patrons, as it will be unnecessary to raise their voices in order to be heard over the music.

Sound survey test procedure

An ambient baseline sound survey test was conducted at the restaurant on Thursday, March 19, 2020, after 10 p.m. (The ambient noise was not high due to the lack of traffic and patrons in the area caused by COVID-19 emergency orders issued by the City). The surrounding area includes commercial and lodging uses. The survey test was conducted by Roberto Gonzalez and Alex Hikmat of ASI. Field measurements of sound levels were performed in accordance with the requirements of accepted standard methods of environmental sound measurement.

The **ambient baseline survey test positions** were selected at locations above and around the outdoor dining area that fairly represent the baseline sound levels with respect to the short term rental units above and neighboring lodging units. The **test positions** were in the following locations (See Figure 1 for visual reference):

Site 1 – In front of the restaurant property line at Ocean Drive.

Site 2 – In front of the Restaurant across Ocean Drive.

Site 3 – Property line at the sidewalk of 12th Street and Ocean Drive intersection.

Site 4 – Across 12th Street, along the property line with the Victor Hotel.

Site 5 – In the alley along the property line with The Tides Hotel.

Site 6 – Inside of Apt 210.

Site 7 – On the balcony of Apt 210, above the outdoor seating area.

The baseline sound test was conducted on Thursday, March 19, 2020, between the hours of 7:30 p.m. and 9:45 p.m.

The temperature at 7:53 p.m. was 77 degrees F, with a dew point of 64.9 degrees F, humidity at 73%, and a barometric pressure of 30.07 inches Hg. The wind was out of the ESEW at 14 mph. The sky condition was clear.

The field **acoustic measurement system** was a digital (Type 1) integrating logging sound level analyzer (Cesva SC 420) and an acoustical calibrator (Cesva C 140). The acoustic measurement system was calibrated on June 18, 2019, with equipment directly traceable to the U.S. National Institute for Standards and Technology (NIST). The sound system used for the study was a Fender Passport P-250. See Figure 2 for the placement of the test speakers.

During these tests, the Cesva sound analyzer instrument continuously recorded the sound level every second and computed the baseline ambient average level. Also, the instrument stored a variety of statistical and spectral acoustic parameters for the test period, updating those values every second.

The acoustics measurement **test protocol** for the instrument system was set to ANSI standard A-weighting and C-weighting for frequency and slow time weighting. The test period was 10 minutes in duration.

Data analysis

In this analysis, the measured sound levels were A-weighted and C-weighted. Sound level measurements which apply A-weighting are designated by the symbol "dBA". Sound level measurements which apply C-weighting are designated by the symbol "dBC". Applying A-weighting to the measurement simulates the average human hearing sensitivity for a wide range of sounds, specifically, greater sensitivity to high frequency sounds (whoosh, whine), and lesser sensitivity to low frequency sounds (thump, rumble). Applying C-weighting to the measurement has a greater sensitivity to low frequency sounds (thump, rumble). Therefore, this weighting is stipulated for virtually all government and industrial regulations.

Sound Test Data Analysis – Time History Analysis

Detailed sound test results for each baseline ambient sound survey are given in the form of a **Time History Chart**, which shows the change in sound level over time for each test record.

Time history analysis of sound data can be very helpful for understanding the character of the tested acoustical environment. Simply stated, the sound level time history indicates the sound level that is measured at any given moment of time during the test period. In this analysis, the sound time history for the test is represented by a chart showing how

the measured sound levels varied with time.

Test results

Baseline ambient sound test

The results of the sound survey show that the measured ambient sound level (LA₉₀) at the test position on the second floor balcony was **60 dBA** and **74 dBC**. This level was determined by local road traffic and other activities occurring in the area at the time. It is noted that this is within 1-2 dBA and 1 dBC of the ambient sound levels reported for the ground level elevation at the property lines for the neighboring hotels. It is expected that this would also be the baseline sound level for the other short term rental apartment units located in the building.

Estimates of sound levels at the Outdoor Dining Area

Acoustical engineering calculations were made to estimate the sound levels at the short term rental apartment units above the restaurant and at the hotel properties to the north and south of the restaurant. The source sound levels used for this analysis are based on the data documented herein.

The expected sound level in the outdoor dining area is documented to be 70 dBA. As noted earlier, the proposed ambience loudspeakers will be limited to 70 dBA.

Based on source sound levels and expected sound management feature reductions, the worst case estimated sound levels on the second floor balcony, where the music would be loudest, is as follows:

<u>Source</u>	<u>Sound Level</u>
Voices	60 dBA / 74 dBC
Ambience Speakers	70 dBA / 80 dBC

A sound level of 60-70 dBA is equivalent to a normal conversation. The sound levels at units further away (on higher floors) from the outdoor dining area are expected to be even less, due to the greater distances involved.

Also, the estimated sound levels at the second floor balcony is equal to the measured ambient baseline levels in the area.

Based on the acoustic measurements taken, the balcony doors are expected to provide an additional 25 dBA of attenuation. Therefore, the activity at the outdoor dining area will be inaudible inside the short term rental apartment units.

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

Very truly yours,

A handwritten signature in black ink, appearing to be 'Roberto', enclosed within a large, hand-drawn oval.

Roberto Gonzalez
Acoustical Consultant
Acoustic Sonic Inc

A handwritten signature in black ink, appearing to be 'Alex', written over a horizontal line.

Alex Hikmat
Technical Assistant
Acoustic Sonic Inc.

Attachments

Table 1

Comparison of background noise levels and noise levels with music playing

Point	Speaker out 100%	Speaker out 75%	Speaker out 50%	Speaker In 100%	Speaker In 75%	Speaker In 50%	Ambient Noise
1	80 dBA 89 dBC	76 dBA 85 dBC	73 dBA 82 dBC	74 dBA 83 dBC	72 dBA 81 dBC	71 dBA 79 dBC	59 dBA 75 dBC
2	71 dBA 84 dBC	69 dBA 81 dBC	66 dBA 75 dBC	70 dBA 76 dBC	67 dBA 78 dBC	64 dBA 73 dBC	56 dBA 68 dBC
3	78 dBA 83 dBC	76 dBA 80 dBC	72 dBA 78 dBC	75 dBA 81 dBC	72 dBA 78 dBC	69 dBA 75 dBC	61 dBA 75 dBC
4	70 dBA 83 dBC	68 dBA 76 dBC	65 dBA 70 dBC	65 dBA 75 dBC	62 dBA 75 dBC	61 dBA 75 dBC	61 dBA 75 dBC
5	70 dBA 80 dBC	68 dBA 75 dBC	66 dBA 74 dBC	66 dBA 76 dBC	59 dBA 74 dBC	58 dBA 74 dBC	58 dBA 74 dBC
6	48 dBA 72 dBC	46 dBA 66 dBC	44 dBA 63 dBC	53 dBA 75 dBC	48 dBA 72 dBC	46 dBA 65 dBC	35 dBA 40 dBC
7	78 dBA 89 dBC	75 dBA 83 dBC	73 dBA 81 dBC	78 dBA 89 dBC	75 dBA 83 dBC	75 dBA 83 dBC	60 dBA 74 dBC

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FIGURE 1
LOCATION POINTS OF MEASUREMENTS



FIGURE 2
LOCATION OF SPEAKERS
PLACEMENTS AT THE EXTERIOR OF
THE RESTAURANT



FIGURE 3
SOUND LEVEL ANALYSER. CLASS A



SERIAL #T24169