EDWARD DUGGER + ASSOCIATES, P.A.
Consultants in Architectural Acoustics

9 March, 2017

Thomas R. Mooney, Director
City of Miami Beach Planning Department
1700 Convention Center Drive, 2nd Floor
Miami Beach, Florida 33139

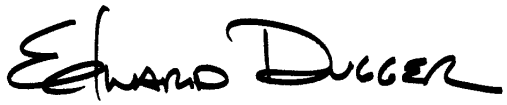
Re: Sound Study
The Park Central Hotel
626-650 Ocean Drive
Miami Beach, Florida, 33139

Dear Mr. Mooney,

Please find enclosed the sound study report for The Park Central Hotel prepared by Edward Dugger + Associates (ED+A). This report assesses the potential acoustical impact at 626-650 Ocean Drive in conjunction with the Applicant's request for a conditional use permit for a Neighborhood Impact Establishment and Outdoor Entertainment Establishment.

If you have any questions or comments regarding this report, please feel free to contact our office.

Regards,



Edward Dugger, FAIA ASA NCAC INCE
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EDWARD DUGGER + ASSOCIATES, P.A.
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ACOUSTICAL IMPACT STUDY

Date: 9 March, 2017

To: Thomas R. Mooney, Director
City of Miami Beach Planning Department
1700 Convention Center Drive, 2nd Floor
Miami Beach, Florida 33139

From: Sam Shroyer, ASA
Edward Dugger, FAIA ASA NCAC INCE

Re: **Sound Study**
The Park Central Hotel
626-650 Ocean Drive
Miami Beach, Florida, 33139
ED+A 17860

Number of pages included with this sheet: 6

<u>Summary of Findings</u>

During a twenty-four-hour acoustical measurement period, the lowest one-minute A-weighted equivalent-continuous sound pressure level (L_{eq}) measured by ED+A was 51.3 dBA at 5:24 AM. The distance between the pool deck and the closest residences would provide approximately 46 dBA between the two locations. To affect the sound pressure levels which would be measured at the residential properties, ignoring the presence of other buildings, pool deck activity would have to be measured at 87 dBA at the source. This is not accounting for the presence of buildings, a diminished line-of-sight between the two locations, and other more dominant sources in the immediate area.

In any case, comparable sound pressure levels would not be expected in the pool area as it is the applicant's goal to create an upscale environment. While the pool itself will close at sundown, the deck may remain open as late as 2:00 AM as a gathering area for guests. However, ED+A does not anticipate that this project would have any acoustical impact on the surrounding community, particularly in regard to residential properties.

Project Introduction

The Park Central Hotel is group of existing buildings which are currently undergoing a renovation. The applicant is seeking a Conditional Use Permit as a hotel with associated bar, dining, and pool facilities. The project will also occasionally include DJs and live musicians for the pool deck and exterior bar area. ED+A has investigated the potential noise impact that the project could have on the surrounding neighborhood, as detailed in this report.

The property under evaluation, located at 626-650 Ocean Drive between 6th Street and 7th Street, is an existing seven-story building, of approximately 61,000 sq. ft. Zoned as Mixed Use Entertainment (MXE), it consists primarily of a hotel with associated pool, bar, and dining facilities. The main entrance to the property is via Ocean Drive.

The area surrounding the property consists mostly of other Mixed Use properties fronting Ocean Drive and Collins Avenue. The closest sound sensitive property is a residential building located at 701 Collins Avenue, approximately 100 ft. from the northern boundary of 650 Ocean Drive and 300 ft. from the southern edge of 626 Ocean Drive. Other sound-sensitive properties are located to the south along 5th Street at distances of at least 500 ft. from 626 Ocean Drive.

The applicant intends to operate their pool deck (located on the western portion of 626 Ocean Drive along Ocean Court) between sunrise and sunset. The pool deck will feature a speaker system which will be operated by a DJ and will occasionally feature live performances. As the property is being renovated into an upscale hotel with the aim of attracting “refined” clientele, the activity and music on the pool deck will operate in a manner which is respectful to the needs and comfort of their own guests in the surrounding hotel rooms, and by extension, the surrounding community. This is also applicable to live performances and performers on the pool deck, such as saxophonists, singers with acoustic guitars, or jazz trio’s, whom would be featured for atmospheric purposes.

The interior restaurant is to open at 7:00 AM with the bar remaining open until 2:00 AM the next morning. The restaurant may occasionally feature live performances, but restaurant speakers will mostly be used only to provide a relaxing dining atmosphere which is common in many restaurants.

Additionally, the applicant has expressed that solo performers or small groups may be present on a terrace along Ocean Drive during daytime hours from time to time. These musicians would require minimal amplification and their performances would consist of instruments such as acoustic guitars or saxophones, akin to street

performers which are a commonly observed on Ocean Drive. The terrace is located in front of the hotel entrance and faces away from the residences toward the already busy Ocean Drive and performances would be limited to the busier and more vibrant time periods of the day.

Stylistically, the applicant has stated that the music on the pool deck and background music in the dining areas will be utilized with the intention of creating a Latin and lounge ambient atmosphere.

Site Visit and Property Analysis

On January 6 and January 7, 2017, ED+A conducted acoustical measurements to quantify the existing ambient sound conditions at the subject property and the surrounding neighborhood. Measurements were taken at 626 Ocean Drive and near 650 Ocean Drive for a twenty-four-hour period, beginning and ending around 6:00 PM. See Figure 1 for measurement locations. Figures 2-5 show the results of these measurements in graphical form. More specific data can be provided if requested.

Location 1 was on a second-story platform near the future location of the pool deck at 626 Ocean Drive while Location 2 was near the northern property boundary of 650 Ocean Drive, out of a fifth-floor window.

Acoustical Analysis

Data obtained from Location 1 provide sound pressure levels demonstrative of ambient sound levels in areas with little traffic or entertainment activity, while most of Location 2's data were influenced by nearby rooftop HVAC equipment. Even without the presence of this equipment, the ambient sound pressure levels at the intersection of 7th Street and Collins Avenue and the condominiums at 701 Collins Avenue would be expected to exceed those measured at Location 1 due to a higher concentration of entertainment establishments and traffic. The lowest one-minute equivalent-continuous sound pressure level (L_{eq}) measured at Location 1 was 51 dBA.

In any case, sound emanating from the pool deck would have to be within 10 dBA of the ambient sound pressure level when measured at 701 Collins Avenue to even have an insignificant impact. This is extremely unlikely due to the distance between the two locations, shielding provided by buildings, and the intended use of the pool deck as described by the applicant.

A distance of 260 ft. would result in divergent attenuation of approximately 46 dBA in a free-field with no acoustical barriers to provide shielding. Therefore, to achieve a sound pressure level of 41 dBA (10 dBA below the lowest ambient L_{eq} of 51 dBA) at

the noise-sensitive receiver, source sound pressure levels at the pool deck would have to exceed 87 dBA. Again, this does not take into consideration the lack of a direct line-of-sight between the two locations due to buildings, which would provide additional sound attenuation. Sound pressure levels of this type would not be expected on the pool deck, especially during nighttime hours when ambient sound pressure levels lowest.

Additionally, the DJ location illustrated in *Park Central First Floor Layout* indicates that speakers on the pool deck would be facing southward, so sound on the pool deck would in fact be directed away from the condominiums. Though the exact speaker locations have not yet been provided by the applicant, ED+A recommends that outdoor speakers are directed toward the pool deck and hotel only, and not toward the property boundaries.

As the project under discussion is a hotel, additional noise due to an increase in foot or vehicular traffic would not be expected during evening hours, particularly near the condominiums at 701 Collins Avenue.

Conclusion

Based on the measurements taken on January 6 and 7, 2017 and ED+A's analysis of the resulting data and the improvements planned by the applicant, ED+A has determined that the Park Central Hotel will not have an acoustical impact on the surrounding neighborhood, particularly at existing residential properties.

Acoustical measurements, data analysis, review of relevant materials, and discussion of the project with the applicant has resulted in ED+A's determination that the Park Central Hotel will not have an acoustical impact on the surrounding neighborhood, particularly at existing residential properties.

Figures

Figure 1

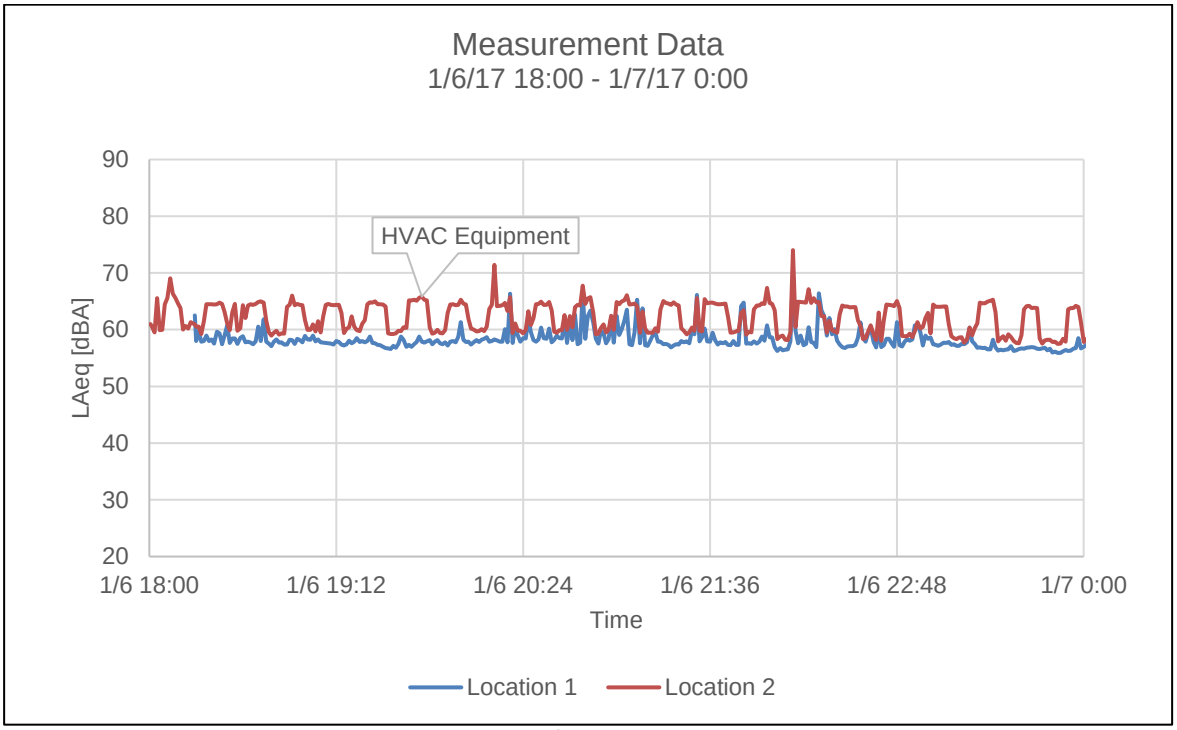


Figure 2

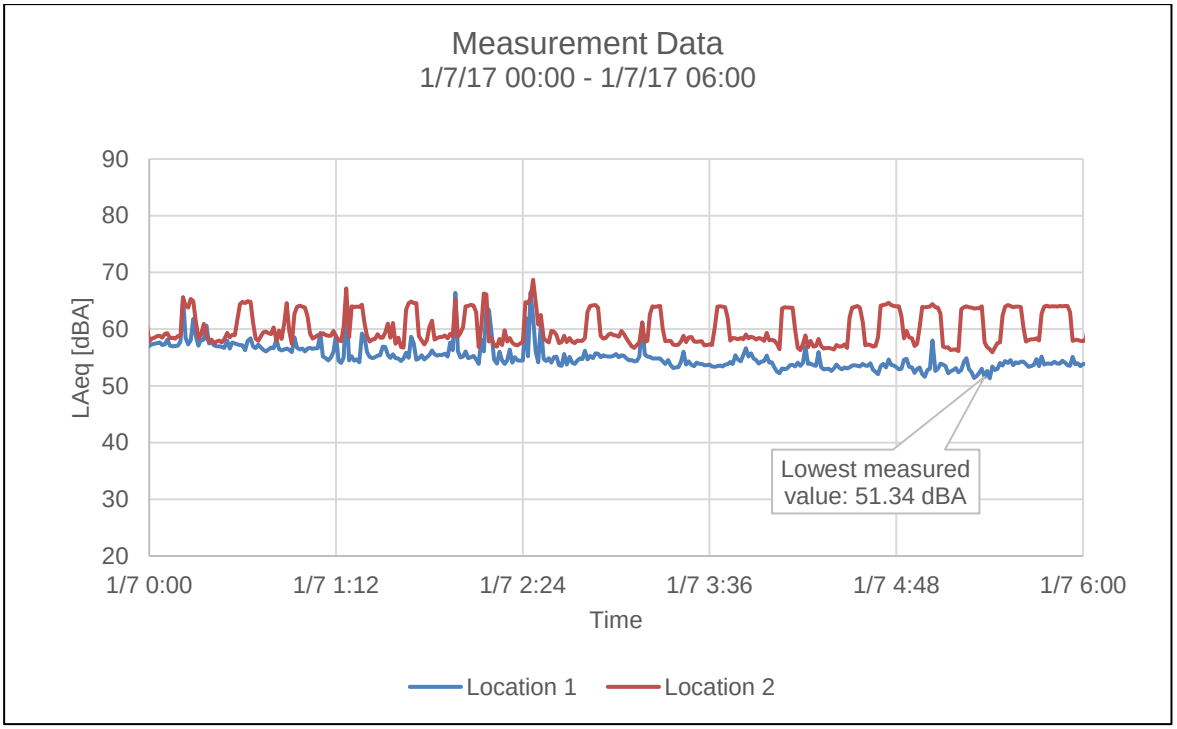


Figure 3

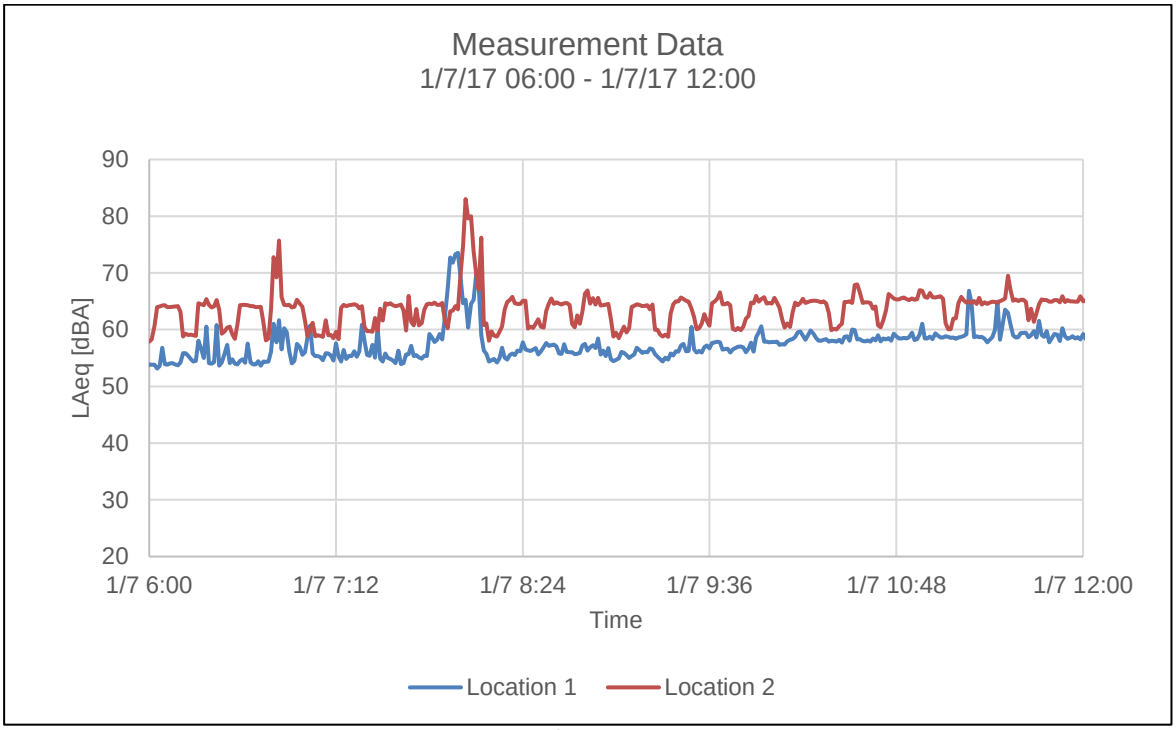


Figure 4

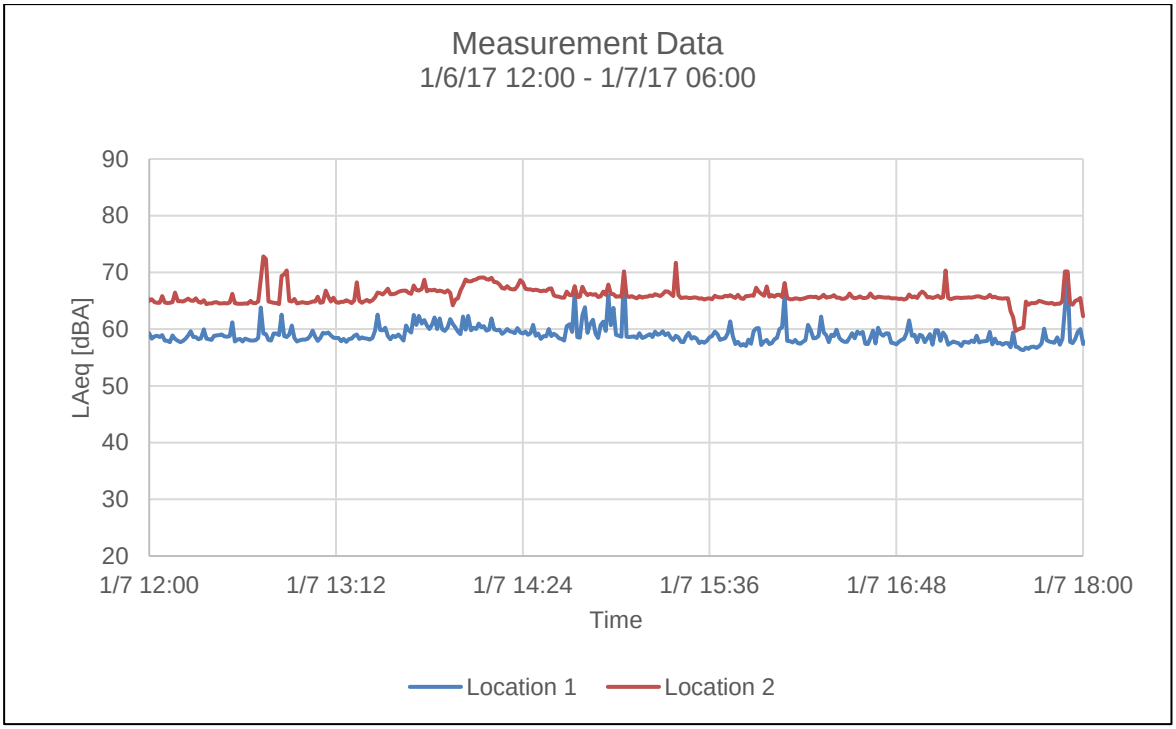


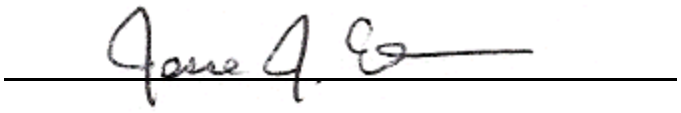
Figure 5

Sound Study Peer Review for the Proposed Neighborhood Impact Establishment at The Park Central Hotel 626-650 Ocean Drive Miami Beach, Florida

Prepared for:

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

Prepared by:



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March 30, 2017

Table of Contents

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 and Outdoor Entertainment Establishment being proposed for The Park Central Hotel at 626-650 Ocean Drive. The noise impact study specifically addresses potential noise impacts due to a new outside pool deck, which may host live and DJ entertainment, upon a residential building in the immediate vicinity. The reviewed report, prepared by Edward Dugger + Associates (ED+A) and dated March 9, 2017 describes the proposed project and environs, summarizes results of a noise survey conducted in the area, and provides conclusions based on the noise survey and subsequent analysis.

2 Project Description

The property comprises several buildings fronting Ocean Drive between 6th Street and 7th Street. The subject building is located at 626 Ocean Drive. An outdoor pool deck is being proposed for the area behind this building, adjacent to Ocean Court. The report indicates that "the project will also occasionally include DJs and live musicians for the pool deck and exterior bar area." The pool deck is intended to operate between sunrise and sunset and will be equipped with a loudspeaker system which will be operated by a DJ. Occasional live music performances will feature sources such as saxophonists, singers with acoustic guitars, and jazz trios.

There is also apparently an interior restaurant being proposed for the facility which would be open from 7 am until 2 am. This venue may occasionally feature live performances. No further information (e.g., location, egress details, etc.) are given for this venue.

Finally, there is the potential for solo performers or small groups to play on a first-floor balcony along Ocean Drive during daytime hours "from time to time." Minimal amplification would be required and instrumentation would include acoustic guitars, saxophones, or similar. This location faces the busy street, away from the aforementioned residences.

The report indicates that the property is surrounded mostly by other mixed use properties fronting Ocean Drive and Collins Avenue and identifies the closest noise sensitive property as being at 701 Collins Avenue, approximately 260' from the pool deck. There is apparently no direct line-of-sight between this residential property and the pool deck (although this has not been personally verified yet).

3 Comments

The sound study report prepared by ED+A specifically addresses the existing environs; discusses results of a 24-hour sound survey conducted at two locations on site from 6 pm on Friday, January 6, 2017 until 6 pm on Saturday, January 7, 2017; and provides conclusions based on certain analyses performed. We have no reason to question the survey methodology employed or the results, however, further clarification would help to judge the conclusions reached in the report that "the Park Central Hotel will

not have an acoustical impact on the surrounding neighborhood, particularly at existing residential properties." The points requiring further consideration are enumerated below.

3.1 Source Sound Levels

The report claims that a distance of 260' is commensurate with a sound level reduction of 46 dBA due to geometric spreading. This is correct, if one is using sound *power* as a reference. In other words, a loudspeaker generating a sound *power* level of 87 dBA will yield a sound *pressure* level of approximately 41 dBA at a distance of 260' (accounting only for distance). However, that same loudspeaker will produce a sound *pressure* level of approximately 69 dBA at 10' and 75 dBA at 5'. This is approximately the sound level people in the vicinity of the aforementioned sound source would actually hear (and what would be measured with a sound level meter). As such, it is these levels that should be used to answer the question of "whether the pool deck will ever get that loud." It appears from the report that 87 dBA was used as a reference sound *pressure* level, as evidenced from the statement that "source sound pressure levels at the pool deck would have to exceed 87 dBA" to achieve a sound pressure level of 41 dBA at the noise-sensitive receiver.

3.2 Other Potential Receptor Properties

The report focuses exclusively on potential impact on the residential building at 701 Collins Avenue. However, it appears that at least two hotels, Beach Paradise Hotel at 600 Ocean Drive and Metropole South Beach at 635 Collins Avenue, are much closer to the pool deck. We are unsure whether these were or should be considered in the context of this application.

3.3 Restaurant Noise

We concur that occasional performances on the first-floor balcony along Ocean Drive will have negligible impact on the residential building at 701 Collins Avenue or even on adjacent hotels. However, we are unsure of the impact of the restaurant. The report states that it would be open until 2 am and that it may occasionally feature live performances but does not indicate its location in the development or the egress conditions (where sound transmission would be most likely to occur). Further information on these aspects would help to inform conclusions related to potential impact.

4 Conclusions

The sound study report prepared by ED+A provides valuable information related to ambient sound levels in the area and presents a clear picture of the establishment and environs. However, further consideration and information related to the aforementioned topics is warranted in order to reach conclusions related to potential impact upon the surrounding neighborhood.

EDWARD DUGGER + ASSOCIATES, P.A.
Consultants in Architectural Acoustics

10 April, 2017

Thomas R. Mooney, Director
City of Miami Beach Planning Department
1700 Convention Center Drive, 2nd Floor
Miami Beach, Florida 33139

Re: Sound Study Peer Review Response
The Park Central Hotel
626-650 Ocean Drive
Miami Beach, Florida, 33139

Dear Mr. Mooney,

The following pages are to serve as ED+A's response to the *Sound Study Peer Review for the Proposed Neighborhood Impact Establishment at the Park Central Hotel* document submitted by Arpeggio Acoustics, LLC to the Miami Beach Planning Department on March 30, 2017.

Please feel free to contact ED+A with any questions, comments, or concerns.

Regards,

Edward Dugger, FAIA ASA NCAC INCE
Principal

Sam Shroyer, ASA
Consultant

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Introduction

In their peer review, Arpeggio acknowledge that ED+A's report had provided valuable information and do not question ED+A's methodology or results. However, the review states that "further consideration and information…is warranted in order to reach conclusions related to potential impact upon the surrounding neighborhood." The three topics presented by Arpeggio are addressed individually in the following sections.

I. Sound Source Levels

Further clarification was requested concerning source sound pressure levels presented in the report. Arpeggio is correct in their assessment that referenced 87 dBA would in fact be a sound *power* level as opposed to a sound *pressure* level. Further efforts have been made by ED+A to establish sound pressure level limits at the pool deck to prevent ambient sound level increases at 701 Collins Avenue.

While the distance from 701 Collins Avenue to the edge of the pool deck was estimated to be 260 ft. and used in prior calculations, it may be beneficial to treat the center of the pool deck as the source location for the purpose of quantifying sound pressure levels. This distance is approximately 283 ft., with an estimated 19 ft. from the center of the pool deck to the edge of the building.

A sound power level of 88 dBA would result in 41 dBA at 283 ft. and 64 dBA would then be expected at the edge of the pool deck. This sound pressure level would serve as a reasonable limit for sound levels emanating off of the property during night time hours to prevent any impact at 701 Collins Avenue. However, it should again be noted that additional buildings would further reduce sound pressure levels travelling between these two locations.

II. Other Potential Receptor Properties

Discussion with the City of Miami Beach has informed ED+A that an additional noise-sensitive receiver exists at 533 Collins Avenue. As this building is even further than 701 Collins Avenue at an approximate distance of 318 ft., the aforementioned sound limits are still applicable. Like 701 Collins Avenue, there are also existing buildings which obstruct the line-of-sight between the pool deck and 533 Collins Avenue, such as the Beach Paradise Hotel at 600 Ocean Drive and an additional building at 620 Ocean Drive which has not yet been completed.

620 Ocean Drive will exceed the pool deck in height and will also border the entire southern perimeter of the pool deck to serve as an effective barrier. This building will also effectively shield the Beach Paradise Hotel from pool deck activity, providing a substantial amount of attenuation.

Several buildings will serve as acoustical barriers between the pool deck and Majestic Hotel South Beach. It should be noted that the existing Park Central Hotel at 640 Ocean Drive is taller than Majestic Hotel South Beach.

A direct sound propagation path will exist between the pool deck and Metropole South Beach which lies directly to the west of the pool deck across Ocean Court. Using the same information which has been previously presented (night time ambient sound levels and sound pressure levels at various locations) and an estimated distance of 20 ft. between the pool deck and Metropole South Beach, a sound pressure level of 55 dBA would be expected at the building's façade when the pool deck is operating at peak levels during night time hours. This calculation did not account for differences in elevation and any perimeter walls or barriers around the pool deck may provide sound reduction.

As Metropole South Beach fronts the busy Collins Avenue and is within proximity of other nightclubs and restaurants, maximum sound levels of this level at the rear façade of the building would be unlikely to result in a significant impact or change from the current environment.

III. Restaurant Noise

The main entrance to the restaurant is within the Park Central Hotel, though outdoor seating and pool deck access would be provided through several doorways along the southern perimeter of the 640 Ocean Drive building. The exterior dining area can essentially be considered an extension of the pool deck in regard to ambience, music, and activity. The elevation of the exterior dining area will also be several feet below the pool deck so an increase in sound pressure level at other properties due to the restaurant would not be anticipated.

As the doorways which lead from the restaurant to the exterior dining area and pool deck are located on the southern perimeter of the building, no impact would be expected at the 701 Collins Avenue. Distance and obstructing buildings would also attenuate any restaurant sound as described previously. However, the limit of 64 dBA at the pool deck property line can also apply to sound pressure levels resulting from sound sources from both the pool deck and the restaurant, treated as one entity. As

described in ED+A's initial report, the Applicant has expressed that live performances within the restaurant are not a priority of the venue, but has also indicated that live performances will serve to enhance the dining experience. Therefore, sound levels from music within the restaurant would not be expected to be produced at levels which would significantly increase ambient levels, even near the pool deck, when doorways are open.