

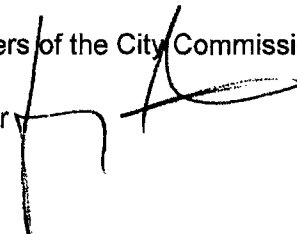


# MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

## COMMISSION MEMORANDUM

TO: Mayor Philip Levine and Members of the City Commission

FROM: Jimmy L. Morales, City Manager 

DATE: September 10, 2014

SUBJECT: **DISCUSSION REGARDING A TRAFFIC IMPACT STUDY AND THE POSSIBLE FUTURE CONVENTION CENTER HOTEL**

This item has been requested by Mayor Philip Levine for discussion at the September 10, 2014 Commission Meeting.

### BACKGROUND

On January 15, 2014, the City Commission directed the Administration to prepare a competitive solicitation for design services relating to the renovation and expansion of the Miami Beach Convention Center (MBCC). To expedite the MBCC renovation process, the City plans to enter into a design-build agreement.

One of the concepts that has been discussed by the City Commission is the construction of a Hotel within the MBCC campus. The proposed location identified by City Commission for a Convention Center Hotel is on the south side of the Convention Center abutting 17<sup>th</sup> Street and Convention Center Drive. The traffic impacts of a possible hotel at the MBCC campus was preliminarily discussed at the July 30, 2014 Commission Meeting. At the meeting, the Mayor and Members of the Commission recommended that the Administration begin looking at the possibility of conducting an independent traffic study for three (3) occupancy scenarios for the MBCC Hotel (400 rooms, 600 rooms, and 800 rooms). In addition, the Commission requested that a draft scope of services, including estimated cost and duration, be presented to Commission for discussion at the September 10, 2014 meeting.

Based on this direction, staff has drafted a scope of services including a description of key tasks intended to gauge the traffic impacts of a Convention Center Hotel for each of the occupancy scenarios

(Attachment). While the Hotel Traffic Impact Study will be conducted separately from the MBCC Traffic Study, the two efforts will be closely coordinated.

### DRAFT SCOPE OF SERVICES

The tasks identified in the attached draft scope of services describe the purpose and necessary deliverables to accurately gauge the impacts of the proposed convention center hotel. The scope prescribes Level of Service (LOS) analysis for twelve (12) intersections along key ingress and egress routes. Given the potential for a Convention Center Hotel to create a different business model for the Convention Center, the scope includes a conceptual analysis of the

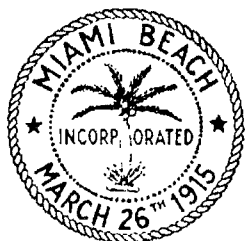
traffic impacts of existing and potential MBCC booking policies as an optional task. This optional task would qualitatively analyze the traffic impacts associated with Consumer Shows and Trade Shows/Conventions. The study would also need to focus on the car traffic generated by comparable South Beach hotels, compared to hotels in other areas.

Staff has preliminarily estimated the study to take 120 days. Based on the complexity of micro-simulation modeling that would need to be conducted to obtain LOS and traffic delay figures for the study intersections, staff estimated the cost of the study at approximately \$70,000 and the optional task at \$15,000.

This item is presented to City Commission for discussion and input.

<sup>J.F.D.</sup>  
KGB/JRG/JFD

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**SCOPE OF WORK**  
**Miami Beach Convention Center Hotel**  
*Traffic Impact Study*

**I. PURPOSE**

The Consultant for the City of Miami Beach (CMB) shall provide professional engineering services to conduct these tasks in order to complete the Traffic Impact Study for a Miami Beach Convention Center Hotel as directed by the City Manager, or designee, in conducting the needed the needed services described in the scope of services.

The purpose of the traffic engineering services described herein is to evaluate the impacts of the proposed Miami Beach Convention Center (MBCC) Hotel to be proposed located within the campus of the planned MBCC Redevelopment Project.

The MBCC Redevelopment Project provides for the renovation and expansion of the Miami Beach Convention Center. The renovation encompasses a comprehensive renovation and modernization of the exhibit halls, meeting rooms, public spaces and façade. In addition, a new ballroom will be added encompassing approximately 80,000 in net rentable area. Finally, the Preferred Parking Lot will be converted into a public park. The parking currently on the Preferred Parking Lot will be replaced within the MBCC.

The development of a Hotel within the campus has been contemplated as a measure to improve convenience for MBCC patrons, and as a measure for the MBCC to book events generating higher economic impact for the city. Three Hotel size proposals are being considered by the City, one with 400 rooms, one with 600 rooms, and one with 800 rooms. The site selected by City Commission for a proposed Hotel is on the south side of the Convention Center campus abutting 17<sup>th</sup> Street and Convention Center Drive.

Based on discussion held by the City Commission during its July 30, 2014 meeting, an independent City managed Traffic Impact Study is to be performed to gauge the impact of the proposed Hotel on the adjacent intersections and corridors. While the Hotel Traffic Impact Study will be conducted separately from the MBCC Traffic Study, the two efforts shall be closely coordinated.

The City desires to understand the traffic impact for the various convention hotel scenarios. Such impacts will be driven by the gross trips generated by the hotel, its relation to the MBCC Redevelopment Project traffic impacts, and its synergy with the dynamics of the City Center District of South Beach. To understand the hotel traffic impacts, the consultant shall perform the necessary research of local and national trends to determine the influence of the proposed hotel occupancy capacities on the MBCC transportation and City mobility.

## II. MEETINGS

### Project Kick-Off Meeting

A project kick-off meeting will be held to discuss the approach, schedule, and methodology. Attendees shall include a representative of the CMB City Manager's office, the MBCC Redevelopment Project Manager, CMB Hotel Traffic Impact Study Project Manager, and supporting staff. The following meetings are anticipated:

### Project Management Meetings

The Consultant shall coordinate and conduct two (2) progress meetings to inform the City. The first progress meeting is to be held at the mid-point of the study schedule and the second progress meeting shall be held once a draft final report has been completed. The Consultant shall provide all necessary material for the progress meeting.

### Elected Official Meetings

The Consultant shall attend and be available to present the findings of the Traffic Impact Study at a future City Commission meeting. The City shall coordinate the agenda and provide notice to the Consultant. At the discretion of the City, the Consultant shall also make itself available for CMB Commission Committee meetings.

## III. TRIP GENERATION

Trip generation calculations for the proposed MBCC Hotel shall be performed using the Institute of Transportation Engineers' (ITE) *Trip Generation*, 8<sup>th</sup> Edition Land-Use Code 310. The intent of utilizing the ITE Trip Generation Land-Use Code 310 is to calculate the gross trips generated by the proposed hotel. This calculation will have to be conducted for each of the hotel capacity alternatives.

One of the key aspects to take into account when calculating net trip generations is the proximity between the proposed hotel site and the MBCC. In order to accurately calculate the internal capture rate for the proposed Hotel in relation to the MBCC Redevelopment Project, the consultant shall contact other convention center hotels throughout the Country to obtain internal capture figures. If accurate figures could not be obtained from contacting other convention center hotels, the Consultant shall use available literature and available data to calculate a suitable internal capture rate for the proposed Convention Center Hotel assumptions for Multi-modal trip reductions for the MBCC Hotel shall be approved by the CMB Project Manager prior to implementation. Since the City is evaluating three (3) possible occupancy scenarios for the proposed Hotel, the Consultant shall perform three (3) different Trip Generation calculations following the methodology described above. The three (3) proposed occupancies are:

- 400 Rooms
- 600 Rooms
- 800 Rooms

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*Deliverable: A Technical Memo describing the Trip Generation methodology followed for the proposed MBCC Hotel shall be submitted to the City for review and approval prior to commencement of Task IV.*

#### IV. TRIP DISTRIBUTION

Trip distribution and traffic assignment for the Hotel shall be based on Miami-Dade County's Metropolitan Planning Organization (MPO) Cardinal Distribution for the area. The Traffic Impact Study report shall include graphics of the project traffic assignment.

*Deliverable: Tables and Graphics depicting the project traffic assignment shall be included as part of the Traffic Impact Study Final Report.*

#### V. DATA COLLECTION

The Consultant shall review and analyze the available data collected as part of previous and current the MBCC Traffic Impact Studies. This data will be analyzed to determine weekday peak-periods and weekend peak-periods. If additional bi-directional vehicle volume counts are required, the Consultant shall receive written approval from the CMB Project Manager.

Based on the peak periods identified from the bi-directional volume counts, the Consultant shall collect four (4) hour Turning Movement Counts (TMCs) during a weekday and weekend at the following locations:

1. Alton Road and 17<sup>th</sup> Street
2. Alton Road and N. Michigan Avenue
3. Alton Road and Dade Boulevard
4. Alton Road and Chase Avenue
5. Alton Road and 5<sup>th</sup> Street
6. N. Michigan Avenue and Dade Boulevard
7. Dade Boulevard and Meridian Avenue
8. 17<sup>th</sup> Street and Washington Avenue
9. 17<sup>th</sup> Street and Meridian Avenue
10. 17<sup>th</sup> Street and Michigan Avenue
11. Convention Center Drive and 17<sup>th</sup> Street
12. Convention Center Drive and Dade Boulevard

Given that Alton Road is currently under construction, the Consultant may obtain previous intersection counts performed prior to the construction. The historic counts shall be provided by the City if available.

*Deliverable: Traffic counts per intersection shall be included as part of the Traffic Impact Study Appendix. FDOT Peak Season Factor table shall be shown if applied.*

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## VI. BACKGROUND GROWTH RATE/COMMITTED DEVELOPMENTS

Background growth rate will be calculated based on historic growth trends at nearby Florida Department of Transportation (FDOT) traffic count stations. In addition, the Consultant shall examine growth rates based on Miami-Dade MPO Long Range Transportation Plan (LRTP) model network volumes. In an effort to remain conservative, the higher of the two (2) growth rates established above shall be utilized in the analysis. Documentation shall be provided as part of the Appendix of the Traffic Impact Study.

Major Committed Developments to be included as part of the background traffic shall be discussed with the CMB Planning and Transportation Departments during the Kick-off meeting. The figures obtained from the committed developments must be included in the Level of Service Analysis. Trips generated by the MBCC shall be included as part of the committed developments.

*Deliverable: FDOT Historical AADT Report utilized to determine the yearly growth factor and Committed Developments Trip Generation Calculations shall be shown in the Traffic Impact Study Appendix.*

## VII. LEVEL OF SERVICE ANALYSIS

The consultant shall obtain traffic signal timing plans from the Miami-Dade County Traffic Signals and Signs Division to conduct Capacity and Level of Service (LOS) analysis for one (1) peak morning hour and one (1) peak afternoon hour for all study intersections. The analyses shall be undertaken following capacity and level of service procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software. Capacity analyses shall be conducted for the following four (4) scenarios as described below (existing traffic conditions, future/background traffic conditions, future total traffic conditions, 15-year horizon traffic conditions) for all three (3) possible occupancy scenarios.

*Deliverables: Synchro analysis results shall be included as part the Traffic Impact Study Appendix.*

- *Existing Conditions Analysis*
- *Future Background Traffic Conditions Analysis (FDOT Growth Rate and Committed Developments).*
- *Future Total Traffic Conditions (Hotel Opening Day) for three (3) occupancy scenarios*
- *15-Year Horizon Traffic Conditions for three (3) occupancy scenarios*

## VIII. RECOMMENDED CAPACITY IMPROVEMENTS

As a result of the capacity and LOS analysis, the Consultant shall identify capacity improvements to mitigate any traffic impact and enhance LOS at the study intersections and/or adjacent corridors for existing and future demand. The improvements shall be separated by the three (3) occupancy scenarios. Preliminary costs estimates shall be provided for each of the recommended improvements.

*Deliverables: Project list including picture or rendering of the project, project description, purpose and need of project, project requirements (additional analysis, design, etc.), preliminary project cost.*

**IX. PARKING DEMAND ANALYSIS**

Based on the vehicle trips determined in the Traffic Impact Study Trip Generation Analysis, the Consultant shall determine the parking demand required by the each of the Hotel occupancy scenarios being considered. The Consultant shall be responsible for coordinating with CMB Planning Department staff to determine the parking requirements in the City.

**X. TRAFFIC IMPACT STUDY REPORT**

The results of the traffic analysis shall be summarized in a Final Report to include all tasks described herein. The report shall include all supporting documents including signal timing, plans, lane geometry, capacity analysis output sheets, and minutes of all meetings. The report shall also include all text and graphics necessary to summarize the analysis and results of the study. The Final Report shall be signed and sealed by a Florida Registered Professional Engineer.

*Deliverable: An electronic copy of the Traffic Impact Analysis Final Report in CD format shall be provided along with a hard-copy.*

**XI. OPTIONAL TASK**

As an optional task at the City's discretion, the Consultant shall conduct research on the impacts of the event programing on the traffic conditions and level of service. The two scenarios in programing to research are:

- Consumer Shows: Open to the public. Most of the attendees are locals who drive to the MBCC and park in the area.
- Trade Shows and Conventions: Events only open by invitation. A percentage of the attendees are visitors who stay in hotels within the City or County and may walk, drive, take a shuttle, or take a taxi into the MBCC.

All historical data required for the research shall be coordinated with the City.

*Deliverable: All data gathered during the research shall be cited and included in the description of the task.*

**XII. SCHEDULE AND COST (CITY ESTIMATE)**

The Consultant shall take no longer than 120 days for the completion of the MBCC Hotel Traffic Impact Study. Staff has preliminarily estimated this study to cost \$85,000 based on the complex micro-simulation modeling that would need to be conducted to analyze intersection capacity and level of service.