

# MIAMI BEACH

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## TRANSPORTATION DEPARTMENT

## MEMORANDUM

TO: Michael Belush, AICP, Planning and Zoning Manager

FROM: <sup>126</sup> Jose R. Gonzalez, PE, Director

DATE: September 25, 2017

SUBJECT: 4000 Collins Avenue – Traffic Impact Study

The Transportation Department has coordinated the review of the subject traffic study submitted by the applicant as part of the Planning Board application for the 4000 Collins Avenue proposed project (Project). Florida Transportation Engineering, Inc. (FTE) was retained by the City to perform a peer review of the Traffic Impact Study (TIS) for the Project. TrafTech Engineering, Inc. prepared and submitted the TIS for this project.

The subject site currently contains a 5-story hotel building and a parking lot. The Project will comprise the following land uses and intensity:

- Hotel – 100 Rooms
- Retail – 11141 Square Feet

Access to the site will be provided by a new access driveway on 41st Street on the north side of the site. The proposed development also includes valet parking service for all patrons that will be located on 40th Street on the south side of the site.

### TRAFFIC ANALYSIS

Turning movement counts (TMC) were collected at the following intersections:

1. Collins Avenue & 41st Street (Signalized)
2. Collins Avenue & 40th Street (Stop controlled)
3. SR A1A Indian Creek Drive & 41st Street (Signalized)
4. SR A1A Indian Creek Drive & 40th Street (Stop controlled)
5. Pine Tree Drive & 41st Street (Signalized)

The intersection turning movement counts performed by Traffic Survey Specialists, Inc. were collected on Friday, October 14, 2017 during the typical weekday's PM peak period of 4:30 PM to 7:00 PM. Subsequently, the PM peak hour volumes were determined and adjusted for peak seasonal variations by utilizing the Florida Department of Transportation Seasonal Factor.

The trip generation for the Project was based on information contained in the Institute of Transportation Engineers' (ITE) Trip Generation Manual (9th Edition). According to the subject

ITE manual, the most appropriate “land use” category for the proposed land uses are: Land Use 310 – Hotel and Land Use 826 – Specialty Retail. As indicated in Tables 1 of the TIS report, the proposed 4000 Collins development is anticipated to generate approximately 1,406 gross daily trips and approximately 118 gross trips (55 inbound and 63 outbound) during the typical PM peak hour. The net new trips (proposed trips minus internal trips) include approximately 1,118 new daily trips and approximately 94 additional PM peak hour trips (43 inbound and 51 outbound).

The trip distribution and traffic assignment for the project were based on Miami-Dade County's Cardinal Distribution information for the study area. Table 2 of the TIS report summarizes the County's cardinal distribution data for Traffic Analysis Zone 633, which is applicable to the project site from the latest SERPM data published by Miami-Dade County. The following traffic assignment was estimated for the proposed retail development:

- 27.5% to/from the north via SR A1A Indian Creek Drive
- 27.5 % to/from the south via Collins Avenue
- 45% to/from the west via 41st Street

Intersection capacity/level of service analyses were conducted for the five (5) study intersections and the garage driveway. The analyses were undertaken following the capacity/level of service (LOS) procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software. The results of the capacity analyses are summarized in Tables 3 and 4 of TIS report. As indicated in Tables 3 and 4, all study intersections are currently operating adequately and will continue to operate at an acceptable level of service in the year 2018 with the Project in place, with two exceptions. The exceptions include the intersection of SR A1A/Indian Creek Drive and 41st Street, and Collins Avenue and 41st Street. The Indian Creek Drive intersection is currently operating at LOS F and will continue to operate at deficient level of service with the Project in place. The intersection of Collins Avenue and 41st Street is currently operating at LOS E and it is projected to continue to operate at the same level of service with the Project in place.

### **VALET OPERATION**

The 4000 Collins project will provide valet service to all patrons. It was assumed that 100% of the patrons arriving to the site will stop at a valet station located on the north side of 40th Street (south side of the project). Parking within the site is served by two parking elevators located near the garage driveway to the site. Parking elevators will be used to move vehicles vertically by the valet attendant to the designated parking level. The parking garage will consist of 105 parking spaces.

A valet queuing analysis was conducted in order to ensure that the on-street stacking is sufficient to accommodate the maximum inbound vehicular demand anticipated at this facility. The maximum length of queue anticipated on 40th Street, at the 90% confidence level, is three vehicles. Therefore, the valet station on 40th Street should provide stacking for at least three (3) vehicles.

As a result, the analysis yielded an average queue of less than 3 vehicles (2.46 vehicle queue) during the PM peak. Since the parking area has available queuing space for 3 vehicles (one in front of each carousel and one at the parking entrance), the probability of exceeding a 3-vehicle queue was found to be less than 10% during the PM peak hour.

### Access Management

The Traffic Impact Study submitted for this development proposes access to the parking structure from westbound 41<sup>st</sup> Street. Given the existing roadway configuration, valet drivers can only access the proposed driveway via westbound left turn from 41<sup>st</sup> Street. On a parallel path, the City has been working with the County to improve coordination between the northbound left turn movement at Collins Avenue/41<sup>st</sup> Street and the westbound through movement at 41<sup>st</sup> Street/Indian Creek Drive. Staff has concerns that the left turn access into the proposed parking structure will significantly impact traffic operations and increase congestion in the area. Based on these observations, staff sent written communication to the applicant's traffic engineer on May 23, 2017, advising that the proposed access could not be supported based on the anticipated impacts. As an alternative, staff recommended that the applicant consider a new access location along Collins Avenue. If this modification was found to be unfeasible, Transportation Department staff advised the applicant that approval from the Florida Department of Transportation (FDOT) and Miami-Dade County Department of Transportation and Public Works (DTPW) would need to be secured for a new southbound left turn movement at Indian Creek Drive/41<sup>st</sup> Street. Further, given the proposed valet routing, additional intersections along Indian Creek Drive and Collins Avenue north of the proposed development which were not evaluated as part of the TIS would need to be evaluated to ascertain impacts. Until such time, the Transportation Department cannot approve the developers' proposed access driveway on 41<sup>st</sup> Street.

### TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) strategies should be developed to reduce the impact of project traffic on the surrounding roadway network and promote trip reduction. The 4000 Collins project proposes the following incentives in order to provide an effective TDM plan for the project:

#### Pedestrian Access

Walking not only reduces automobile trips and their contribution to congestion and emissions, it also provides health benefits to the employees who use this mode of transportation. It is, however, the mode that is least likely to be used for a number of reasons. It is unlikely that employees will reside within a reasonable walking distance (within ¼ - ½ mile) of the subject facility. There are many attractive destinations within easy access from the 4000 Collins project and the project has been designed in such manner as to provide good sidewalk connectivity and therefore, many customers of the future project are expected to be walking trips.

#### Bicycling

The site of the proposed development offers the potential to encourage the use of the DecoBike program. Use of DecoBikes could be supported by providing monthly passes to employees. Monthly passes are \$15.00 for unlimited 30 minute rides and \$25.00 for unlimited 60 minute rides. Within the immediate area of the 4000 Collins project, there are two convenient DecoBike rental stations (Station 212: 40th Street & Collins Avenue and Station 220: 44th Street and Collins Avenue/Fontainebleau Hotel). Patrons will be informed of the two DecoBike rental stations. **(Goal: 6 employees and 2 Customers)**

### Mass Transit

There is a wealth of transit options for the 4000 Collins. County bus transit routes include 150, 120, 115/117, S, C and M routes. The nearest bus stops for these services are located at the intersection of Collins Avenue and 41st Street and Indian Creek Drive and 41st Street. These transit routes provide frequent service and access to all of Miami-Dade County as well as connections to other destinations outside of the County. Employers of the 4000 Collins can provide a significant inducement to employees to use public transportation (Miami-Dade Transportation and Public Works (DTPW)) through a transit subsidy. Transit subsidies can also provide tax benefits to both employees and employers. DTPW offers three methods to provide transit subsidies:

- The employee uses pre-tax dollars from their salary to purchase monthly transit passes.
  - There is no income tax on the portion of their salary used for transit passes.
  - The pre-tax funds also reduce the employees' taxable salary, reducing the total amount of income tax paid by the employees.
- The employer pays the total cost of a monthly transit pass using a tax-deductible (to the employer) subsidy.
  - The employer receives a tax deduction equivalent to the value of the transit subsidies provided to the employees.
  - The transit subsidy is a fringe benefit to employees and is not taxable income.
- Both the employer and employees share the cost of transit passes, paying for them with pre-tax dollars.
  - The employer reduces his/her payroll taxes.
  - Employees do not pay income tax on the money used for transit passes.

DTPW monthly passes if purchased by an individual are \$112.50. Corporate discounts are available based on the number of participating employees. For 4 – 99 employees, monthly passes are \$101.25 per employee, for 100 or more employees, the cost is \$95.65 per employee.

In addition, the City operates a free trolley service that serves the Collins Avenue and Indian Creek Drive corridors (i.e., the Middle Beach Trolley and the Collins Link. **(Goal: 2 employees)**).

### Carpooling

Carpooling is historically the least effective alternative transportation mode, even when implemented on a regional basis. Given the relatively small employee base of a single employer, it is likely that carpooling will provide a significant amount of trip reduction. However, free valet service could be made available to customers that carpool. **(Goal: 4 customers)**.

### Shuttle Service and Local Employment

The hotel will provide its guests with shuttle services to local area airports, upon request. In an effort to promote local employment, the hotel operator will seek to employ local Miami Beach residents. The employment of local nearby residents will assist in minimizing traffic impacts.

### RECOMMENDATION

Due to staff's outstanding concerns with the potential impact that the proposed driveway on 41st Street would have on the safety, operation, and level of service of the adjacent roadway network, the Transportation Department cannot approve the developer's Traffic Impact Study until such time as the following conditions are met:

- A. The developer eliminates the proposed driveway on the south side of 41<sup>st</sup> Street from its design and proposes a new driveway on Collins Avenue; or demonstrates that a driveway on Collins Avenue is not viable for the intended program of the proposed structure.
- B. Should it be demonstrated that a driveway on Collins Avenue is not viable, the developer shall secure approval from FDOT and DTPW for a new southbound left turn movement at the Indian Creek Drive/41st Street intersection and analyze the following intersections for the City's approval as part of a supplemental Traffic Impact Study:
  - Collins Avenue and 43<sup>rd</sup> Street
  - Indian Creek Drive and 43<sup>rd</sup> Street
  - Indian Creek Drive and 44<sup>th</sup> Street
  - Indian Creek Drive and 41<sup>st</sup> Street
- C. Should a driveway along Collins Avenue not be viable and should the developer secure approval from FDOT and DTPW for a new southbound left turn movement at Indian Creek Drive/41<sup>st</sup> Street, the developer shall subsequently secure approval from the City of Miami Beach Transportation Department for a channelized driveway design that physically prohibits left turns in and out of the proposed development.

Please feel free to contact me if you have any questions on the above.

cc: Josiel Ferrer-Diaz, E.I., Transportation Manager  
Firat Akcay, Transportation Analyst

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