



Calvin, Giordano & Associates, Inc.
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Memorandum

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Date: 09/20/2016

To: Christy Dominguez, Planning and Zoning Division, City of Hallandale Beach

From: Eric S. Czerniejewski, P.E., Director of Traffic Engineering, Calvin, Giordano and Associates, Inc.

Subject: Staff Report on Traffic Impact Analysis Report

Project: HBC Medical Center

CC: File

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The HBC Medical Center is a proposed development project to be located at the southwest corner of Foster Road and N. Dixie Highway in the City of Hallandale Beach. The proposed development project includes a 25,089 square foot medical office building. Calvin, Giordano & Associates, Inc. (CGA) completed our review based on the final revised traffic impact analysis (TIA) and related comment response memo dated September 16, 2016.

TRAFFIC IMPACT ANALYSIS

Site Access

The proposed development project will have site access through driveway connections on Foster Road and NW 1st Avenue. Both driveway connections will have full access. Based on the submitted final traffic impact analysis, the two driveways to the proposed parking lot do not generate a large number of peak hour trips with vehicle stacking not anticipated to exceed one vehicle in length.

Trip Generation

The trip generation for the proposed redevelopment was based on the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th Edition. The trip generation for the future use was calculated based on ITE land use code 720 (Medical Office). The trip generation was calculated based on square footage of medical office building. The trip generation did not apply a pass-by or internal capture trip reduction. The new trip generation based on square footage of building area for the future land use is summarized in Table 1. The trip generation included by the applicant's traffic consultant resulted in a development that will generate more than 100 net new trips per day. The development generates 766 daily trips, 57 AM peak hour trips and 81 PM peak hour trips.



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Table 1: Trip Generation

ITE Land Use Code	Description	Unit*	Total Units	Total Trips			Entering			Exiting		
				AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Proposed Land Use												
720	Medical Office	1000 SF	24	57	81	766	45	23	383	12	58	383
Total Proposed Traffic				57	81	766	45	23	383	12	58	383

TRAFFIC IMPACT

City's Requirements

The City's Comprehensive Plan Policy 1.3.7 says: *Development applications located within the boundaries of the City's urban infill or redevelopment area shall indicate traffic impacts to the local, state and Intrastate Highway system. The study will address over capacity roadway links and intersections within the City within one (1) mile of the subject site where impact exceeds de minimis levels. Although the study will be required to address improvements to over capacity links and/or intersections, the study shall not be limited by this approach. The study shall analyze alternatives or techniques to minimize traffic impacts on the Hallandale Beach roadway network. These techniques shall include but not be limited to Transportation Demand Management applications, Transportation Systems Management approaches and improving multi-modal access. For projects generating in total less than 100 average net daily trips per day, a traffic statement may be provided assessing conditions within 1,000 feet of the subject site, unless otherwise required by the City.*

Since this development project generates more than 100 daily trips, the applicant's traffic consultant provided a TIA that addressed over capacity roadway links and intersections within the City within one (1) mile of the subject site where impact exceeds de minimis levels.

Study Area

The TIA covers a one mile study area; the following intersections were analyzed:

- NE 1st Avenue and Pembroke Road (Signalized)
- Dixie Highway and Pembroke Road (Signalized)
- NE 1st Avenue and 3rd Street (Signalized)
- Dixie Highway and 3rd Street (Signalized)
- Foster Road and Old Dixie Highway (Unsignalized)



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- NW 1st Avenue and NW 3rd Street (Unsignalized)
- NW 1st Avenue and Foster Road (Unsignalized)
- Foster Road and HBC Medical Center Driveway (Unsignalized)
- NW 1st Avenue and HBC Medical Center Driveway (Unsignalized)

Traffic Data

Traffic counts were collected by the applicant's traffic consultant on 06/22/16, 06/23/16, 06/29/16 and 06/30/16. Existing traffic counts were used from prior recent traffic studies as well. The date of traffic data collection has been identified for the following intersections:

- NE 1st Avenue and Pembroke Road- 10/28/15
- Dixie Highway and Pembroke Road- 10/28/15
- NE 1st Avenue and 3rd Street- 06/22/16 and 06/23/16
- Dixie Highway and 3rd Street- 06/22/16 and 06/23/16
- Foster Road and Old Dixie Highway- 06/29/16 and 06/30/16
- NW 1st Avenue and NW 3rd Street- 06/29/16
- NW 1st Avenue and Foster Road- 06/29/16 and 06/30/16

Road Segment Link Analysis

According to the TIA, all roadway segments are expected to operate at level-of-service (LOS) D or better during the AM and PM peak hours. The TIA found that the following road segments were significant thus a two way peak hour link analysis was performed for the 2018 buildout year:

- NE 1st Avenue- NE 3rd Street to Pembroke Road:
-2018 Total Traffic = 532 (LOS D Volume = 1,752)
- NW 1st Avenue- NW 3rd Street to Foster Road
-2018 Total Traffic = 163 (LOS D Volume = 1,197)
- NE 3rd Street- NW 1st Avenue to Dixie Highway
-2018 Total Traffic = 503 (LOS D Volume = 1,197)
- NE 3rd Street- Dixie Highway to NE 1st Avenue
-2018 Total Traffic = 674 (LOS D Volume = 1,197)

Intersection Traffic Operational Analysis

According to the TIA, all of the analyzed intersections are expected to operate at a LOS D or better during the AM and PM peak hours. The TIA found t

- NE 1st Avenue and Pembroke Road (Signalized)
 - 2018 AM Peak Hour LOS C; 2018 PM Peak Hour LOS D
- Dixie Highway and Pembroke Road (Signalized)
 - 2018 AM Peak Hour LOS C; 2018 PM Peak Hour LOS C



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- NE 1st Avenue and 3rd Street (Signalized)
 - 2018 AM Peak Hour LOS D; 2018 PM Peak Hour LOS D
- Dixie Highway and 3rd Street (Signalized)
 - 2018 AM Peak Hour LOS C; 2018 PM Peak Hour LOS D
- Foster Road and Old Dixie Highway (Unsignalized)
 - 2018 AM Peak Hour LOS B; 2018 PM Peak Hour LOS B
- NW 1st Avenue and NW 3rd Street (Unsignalized)
 - 2018 AM Peak Hour LOS B; 2018 PM Peak Hour LOS B
- NW 1st Avenue and Foster Road (Unsignalized)
 - 2018 AM Peak Hour LOS B; 2018 PM Peak Hour LOS B
- Foster Road and HBC Medical Center Driveway (Unsignalized)
 - 2018 AM Peak Hour LOS A; 2018 PM Peak Hour LOS A
- NW 1st Avenue and HBC Medical Center Driveway (Unsignalized)
 - 2018 AM Peak Hour LOS A; 2018 PM Peak Hour LOS A

The 95th percentile queue vehicle stacking was reviewed for each of the intersection traffic operational analysis. The queuing impacts were summarized in Table 4 by the applicant's traffic consultant. It should be noted that long queues are anticipated for the eastbound left turns at NE 1st Avenue and Pembroke Road (838' in the AM peak hour and 768' in the PM peak hour) and westbound left turns at Dixie Highway and Pembroke Road (662' in the AM peak hour and 798' in the PM peak hour). The applicant's traffic consultant performed field observations and confirmed that the traffic signals at these two intersections are coordinated so that the queues are accommodated without overall disruption to the intersection.

PARKING

The proposed development site will provide a total of 70 parking spaces for the Medical Office Building. The total required parking per the City of Hallandale Beach Code of Ordinances is 76 parking spaces. The applicant has requested an administrative waiver for this 7.9% parking reduction.

RECOMMENDATION

CGA recommends acceptance of the TIA and the proposed parking reduction waiver with the following conditions:

- The applicant complies with the transit infrastructure requirements (relocation of bus stop ID#2320) per the Broward County Transit Division comment letter dated 07/08/16.



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- The applicant's final construction drawings provide a minimum distance of yellow stripe from the proposed stop bar for delineation of the ingress and egress lanes at the driveway intersections at Foster Road and NW 1st Avenue.
- The applicant's final construction drawings include installation of appropriate Manual of Uniform Traffic Control Devices (MUTCD) signage (one way, no left turn, wrong way, etc.) at the north-south one way drive aisle closest to NW 1st Avenue in order to ensure that there are no left turns at this ingress egress driveway.