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### MEMORANDUM

To: Alex David, AICP, Interim Planning and Zoning Director

From: Scarlet R. Hammons, AICP CTP, Planning Consultant

Date: January 6, 2020

Re: Town Centre Senior Residential Traffic Impact Study  
Cutler Bay Town Center Seniors Residential 10100 SW 186<sup>th</sup> Street – Site Plan Application  
(Application No.: SP-2018-041)

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The attached Executive Summary is provided in response to the final consultant review memo of the Traffic Impact Study prepared by Caltran Engineering Group, Inc.



# **Cutler Bay Town Center** **Residential Elderly Senior Housing** *Traffic Impact Study*

## September 2019

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## Engineer's Certification

I, Juan S. Calderon, certify that I currently hold an active Professional Engineer's License in the State of Florida and I am competent through education and experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. I further certify that this report was prepared by me, or under my responsible charge, as required by Chapter 61G15-18, F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.

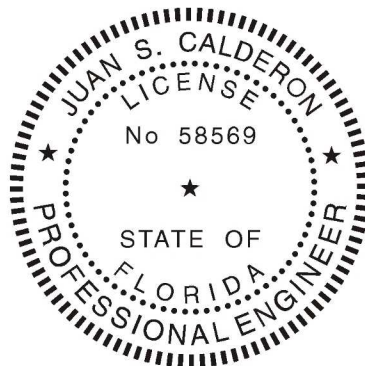
**Project:** Cutler Bay Town Center Residential Elderly Senior Housing Traffic Impact Study

**Location:** Miami-Dade County, Florida

**Client:** Andy Atrio  
Cutler Bay Town Center LLC  
15715 South Dixie Highway, Suite 203  
Palmetto Bay, FL 33157

**Report Prepared by:** Caltran Engineering Group, Inc.  
790 NW 109th Avenue  
Miami, FL 33172

I acknowledge that the procedures and references used to develop the results contained in this report are standards to the professional practice of transportation engineering as applied through professional judgement and experience.



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## Table of Contents

Executive Summary .....	1
1. Analysis Methodology .....	2
2. Introduction .....	3
3. Existing Geometric Conditions .....	5
3.1. Roadway Segments.....	5
3.2. Roadway Intersections .....	6
4. Traffic Data Collection .....	8
5. Scenario 1 - Existing Conditions .....	9
6. Scenario 2 - Future Conditions - No Build Condition .....	12
6.1. Growth Analysis .....	12
6.1.1. Historical Traffic Data .....	12
6.1.2. Modeling Data .....	13
6.2. Traffic Growth Analysis.....	13
6.3 Committed Developments.....	14
7. Scenario 3 - Future Conditions, Proposed Developments Build-Out Condition .....	17
7.1. Trip Generation .....	17
7.2. Trip Distribution and Assignment .....	18
8. Level of Service Analysis .....	23
9. Concurrency Analysis .....	25
10. Parking Analysis .....	26
11. Turn Lane Evaluation.....	27
12. Summary of Findings and Recommendations .....	28

## List of Figures

Figure 1. Location Map of the Development and Surrounding Network.....	4
Figure 2. Scenario 1 - Existing Peak Hour Traffic – AM Peak .....	10
Figure 3. Scenario 1 - Existing Peak Hour Traffic – PM Peak.....	11
Figure 4. Traffic Monitoring Site Locations .....	13
Figure 5. Scenario 2 – Future No Build Peak Hour Traffic – AM Peak.....	15
Figure 6. Scenario 2 – Future No Build Peak Hour Traffic – PM Peak.....	16
Figure 7. Cardinal Trip Distribution and Assignment .....	20
Figure 8. Scenario 3 – Future Build Out Peak Hour Traffic – AM Peak .....	21
Figure 9. Scenario 3 – Future Build Out Peak Hour Traffic – PM Peak .....	22

### List of Tables

Table 1. Existing Traffic Volumes (Data collected on 10/30/2018) .....	9
Table 2. Historical Traffic Volumes .....	12
Table 3. Projected Model Volumes .....	13
Table 4. Growth Analysis Results.....	14
Table 5. Cutler Bay Town Center Residential Elderly Senior Housing Development Trip Generation .....	17
Table 6. Cutler Bay Town Center Residential Elderly Senior Housing Development Cardinal Distribution .....	18
Table 7. Trip Distribution Assumption for Entering Vehicles.....	18
Table 8. Trip Distribution Assumption for Exiting Vehicles .....	19
Table 9. LOS Analysis of Intersections (Delay and LOS in Appendix F and G).....	24
Table 10. Existing and Future LOS – Concurrency Analysis.....	26
Table 11. Driveways Turn Lane Evaluation.....	27

### List of Appendixes

Appendix A: Architectural Plans and Methodology
Appendix B: Traffic Data Collection
Appendix C: Growth Analysis
Appendix D: OTISS Reports – Trip Generation
Appendix E: Signal TOD and SOP
Appendix F: Seasonal Factor
Appendix G: Synchro Reports - Inputs
Appendix H: Synchro Reports - Outputs
Appendix I: Concurrency Analysis Standards
Appendix J: Turn Lane Evaluation

## Executive Summary

CALTRAN Engineering Group, Inc. (CALTRAN) was retained by Cutler Bay Town Center LLC to assess the traffic impact with regards to the proposed development that includes 93 units for residential elderly senior housing with 11,890 Square Feet (SF) of office development and 8,977 Square Feet of commercial development to be located at 10100 SW 186 Street, within the Town of Cutler Bay, FL, 33157.

The proposed development will occupy the empty parcel, located on the south-west corner of SR 5/US-1/South Dixie Hwy and SR 994/Quail Roost Drive/SW 186<sup>th</sup> Street between the shopping plaza and the South Dade Busway.

Two main access points will be implemented for the development according to the site plan (presented in **Appendix A**). Three driveways serve as access points from major streets to the plaza at which the development is located. Two driveways are located on the east side of the plaza along SR 5/US-1/South Dixie Hwy and one is located on the northern driveway which will serve trips that are coming from SR 994/Quail Roost Drive/SW 186<sup>th</sup> Street.

This traffic impact study evaluates the potential traffic impacts, focusing on traffic conditions at the study intersections, which may be impacted by the proposed development. The study identifies short-term roadway and circulation needs, determines potential mitigation measures, and any critical traffic issue that should be addressed upon a planning process. The traffic operations of existing and future conditions during AM and PM peak periods were analyzed as part of this study. Traffic data collection includes Turning Movement Counts (TMCs) during peak demand periods as well as daily vehicular throughputs along adjacent roadways. The existing and future conditions were simulated using the micro-simulation software Synchro 10.0.

Based on the findings, the following results were concluded:

- Under Highway Capacity Manual (HCM) 2010 methodologies, the studied intersections are projected to experience additional delay after applying the growth factor as well as the forecasted trips generated by the proposed development. However, none of the intersections will be adversely affected due to the proposed development.



- According to the requirements established Florida Greenbook (FDOT), no new left or right turn lanes are required for any of the concerned driveways (see **Appendix J**).
- Concurrency analysis indicates that based on the traffic data, the Level of Services along the adjacent segment of SR 5/US-1/South Dixie Hwy and SR 994/Quail Roost Drive/SW 186<sup>th</sup> Street is equal to adopted LOS D or better.
- According to the site plan parking calculations based on Ordinance No. 19, Amending Section 3-144 "Minimum Parking ratios", 1.0 parking space per dwelling unit is required for Multifamily residential for older persons as defined by Fair Housing Act. Consequently 111 parking spaces are required which is equal to the 111 provided spaces. This includes a 10% parking reduction as well as the change of off-parking reduction per bicycle parking as per the most recent site plan. As a result, parking space provided is in compliance with the Cutler Bay town code.

In summary, the proposed development will not have an adverse impact on the surrounding roadway network and/or affect other traffic generators in the area.

## 1. Analysis Methodology

The traffic impact analysis was performed in accordance to the Town of Cutler Bay approved Traffic Impact Methodology also found in **Appendix A**, as well as the FDOT Florida Department of Transportation (FDOT) Traffic Impact Handbook guidelines. Field observations, data collection, and traffic operations were analyzed using the capacity analysis methodology published in the Highway Capacity Manual (HCM) through Synchro analysis software. A set of comments on the original report was provided. This report is a revision, with the responses to comments which can be found in the additional information section.

Three (3) development scenarios were analyzed as part of the traffic impact analysis.

- **Scenario 1 - Existing Conditions:** Current traffic evaluation for a base condition establishment during the weekday peak hours from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM time period.

- **Scenario 2 - Future Conditions /No Build out Development Traffic & Committed Development Traffic:** Consistent with background traffic historical trends and SERPM 7.0 (Southeast Regional Planning Model – Version 7.0) model trends, a growth rate are to be factored into the Existing Conditions (Scenario 1) analysis in addition to the committed developments future trips. The growth factor was obtained for the number of years until the proposed development Build-Out Condition (2020). This scenario will be the baseline for the impact of the development.
- **Scenario 3- Future Conditions Build-Out Development Traffic:** Based on the results obtained in the Future Conditions (Scenario 2), the additional AM and PM peak hour trips expected to be generated by the proposed development (considering 10<sup>th</sup> Edition of The ITE Trip Generation Handbook) through the Online Traffic Impact Study Software (OTISS) are to be included into the future network conditions.

For each of the three (3) scenarios, a level of service analysis is provided at concern intersections and driveways. Moreover, considering the 95<sup>th</sup> Percentile queues, a deceleration length analysis was performed for the critical movements affected by the developments forecasted trip generation.

## 2. Introduction

A five-story senior housing residential building with office space is proposed to occupy the vacant land under folio No. 36-6005-001-0091 to be located at 10100 SW 186 S Dixie Hwy, Town of Cutler Bay, FL, 33157. This development will have total area of 59,379 Square Feet from which 54,735 Square Feet is net land area. The detailed architectural plan can be seen in **Appendix A. Figure 1** depicts the location map of this development and also the area network. This development will be surrounded by S Miami-Dade Busway (west) and SR 994/Quail Roost Drive/SW 186<sup>th</sup> Street (north) and the Rooms to Go & Pollo Tropic Plaza (east). Access to the development will be provided using three driveways located along SR 994/Quail Roost Drive/SW 186<sup>th</sup> Street and SR 5/US-1/South Dixie Hwy. Per the site plan, a total of 111 parking spaces are provided.