



Yahya Consultants Inc.

5516 NW 58th Ave
Coral Springs FL 33067
Phone: 954.263.9318
E-mail: ryehia@myacc.net

Subject:

**Trip generation
7300 Royal Palm Blvd
Margate, FL 33063**

Introduction

In terms of trip generation, a traffic impact statement will not be required pursuant to Section 31-35 of the Code based on the difference in trips as determined by the Institute of Transportation Engineers (“ITE”) Trip Generation Manual 10th Edition (“ITE Manual”).

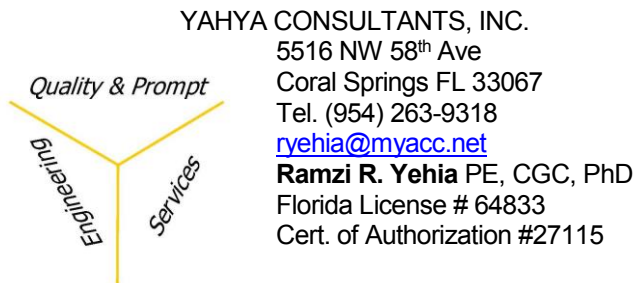
Retail shopping centers like that currently operating on the Property are typically considered with a shopping center trip generation rate that accounts for all tenants and the potential of several high-turnover uses within a shopping center. This would have previously considered the presence of a drive-through window for food service or banking.

Additionally, the following analysis of the specific change of use based on ITE Manual rates indicates a traffic impact statement will not be required. Please refer to Appendix “A” for ITE Manual rates:

1. Land Use number **936** within ITE Manual provides trip generation rates for a coffee/donut shop without a drive-through window. It was determined that, on the average, such a use generates:
 - a. **101.14** vehicle trips per 1,000 square feet of gross floor area for the **AM peak hours** and
 - b. **36.31** during the **PM peak hours**.
2. Land Use number **937** within the ITE Manual provides trip generation rates for a coffee/donut shop with a drive-through window. It was determined that, on the average, such a use generates:
 - a. **88.99** vehicles trips per 1,000 square feet of gross floor area for the **AM peak hours** and
 - b. **43.38** during the **PM peak hours**.

Conclusion

The Proposed Development should not require a traffic impact statement. Based on the difference in results which are summarized as: an approximate **decrease of 12 trips** during the **AM peak hours** and an **increase of 7 trips** during the **PM peak hours**.



November 19, 2018



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APPENDIX "A"

ITE MANUAL – COFFEE SHOPS TRIP GENERATION RATES

Land Use: 936

Coffee/Donut Shop without Drive-Through Window

Description

This land use includes single-tenant coffee and donut restaurants without drive-through windows. Freshly brewed coffee and a variety of coffee-related accessories are the primary retail products sold at these sites. They may also sell other refreshment items, such as donuts, bagels, muffins, cakes, sandwiches, wraps, salads, and other hot and cold beverages. Some sites may also sell newspapers, music CDs, and books. The coffee and donut shops contained in this land use typically hold long store hours (more than 15 hours) with an early morning opening. Also, limited indoor seating is generally provided for patrons; however, table service is not provided. Coffee/donut shop with drive-through window (Land Use 937), coffee/donut shop with drive-through window and no indoor seating (Land Use 938), bread/donut/bagel shop without drive-through window (Land Use 939), and bread/donut/bagel shop with drive-through window (Land Use 940) are related uses.

Additional Data

Many of the facilities in this land use were located within a shopping center or as an outparcel to a shopping center.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the one general urban/suburban site with person trip data, the overall highest person volumes during the AM and PM on a weekday were counted between 9:15 and 10:15 a.m. and 6:00 and 7:00 p.m., respectively.

The sites were surveyed in the 1990s, the 2000s, and the 2010s in California, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, and Vermont.

Specialized Land Use Data

One study provided data for a coffee/donut shop without a drive-through window that sells donuts and ice cream (source 563). The trip generating characteristics of this site differed from the sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site has a gross floor area of 2,400 square feet. It generated 48 vehicle trips during the weekday PM peak hour of adjacent street traffic and 52 vehicle trips during the weekday PM peak hour of the generator.

One study provided data for a coffee/donut shop without a drive-through window that sells donuts and sandwiches (source 563). The trip generating characteristics of this site differed from the sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site had a gross floor area of 4,000 square feet. It generated 239 vehicle trips during the weekday AM peak hour of adjacent street traffic, 52 vehicle trips during the weekday PM peak hour of adjacent street traffic, and 111 vehicle trips during the weekday PM peak hour of the generator.

Source Numbers

555, 563, 571, 594, 617, 618, 621, 728, 863, 902, 954, 955, 982

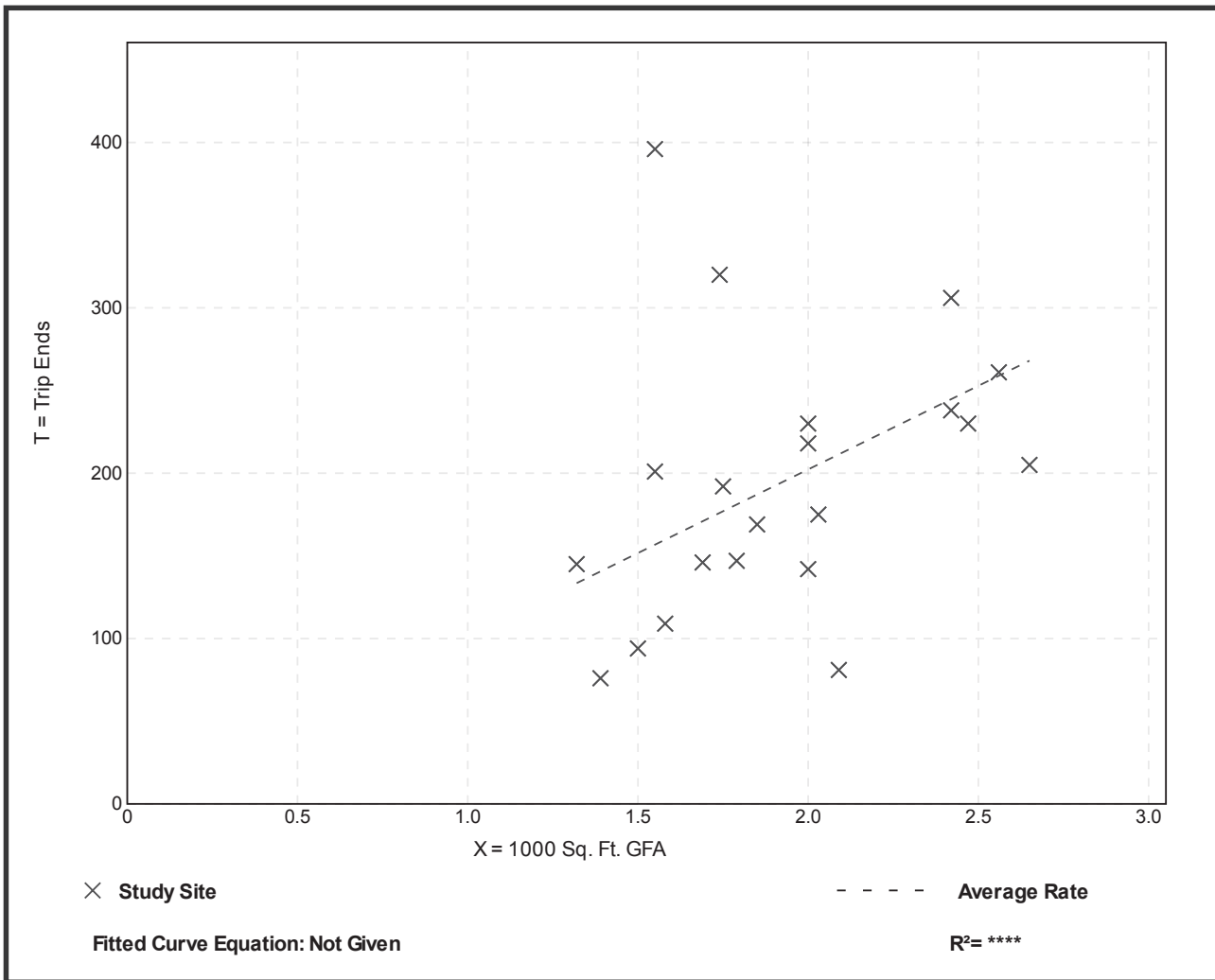
Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 21
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
101.14	38.76 - 255.48	43.44

Data Plot and Equation



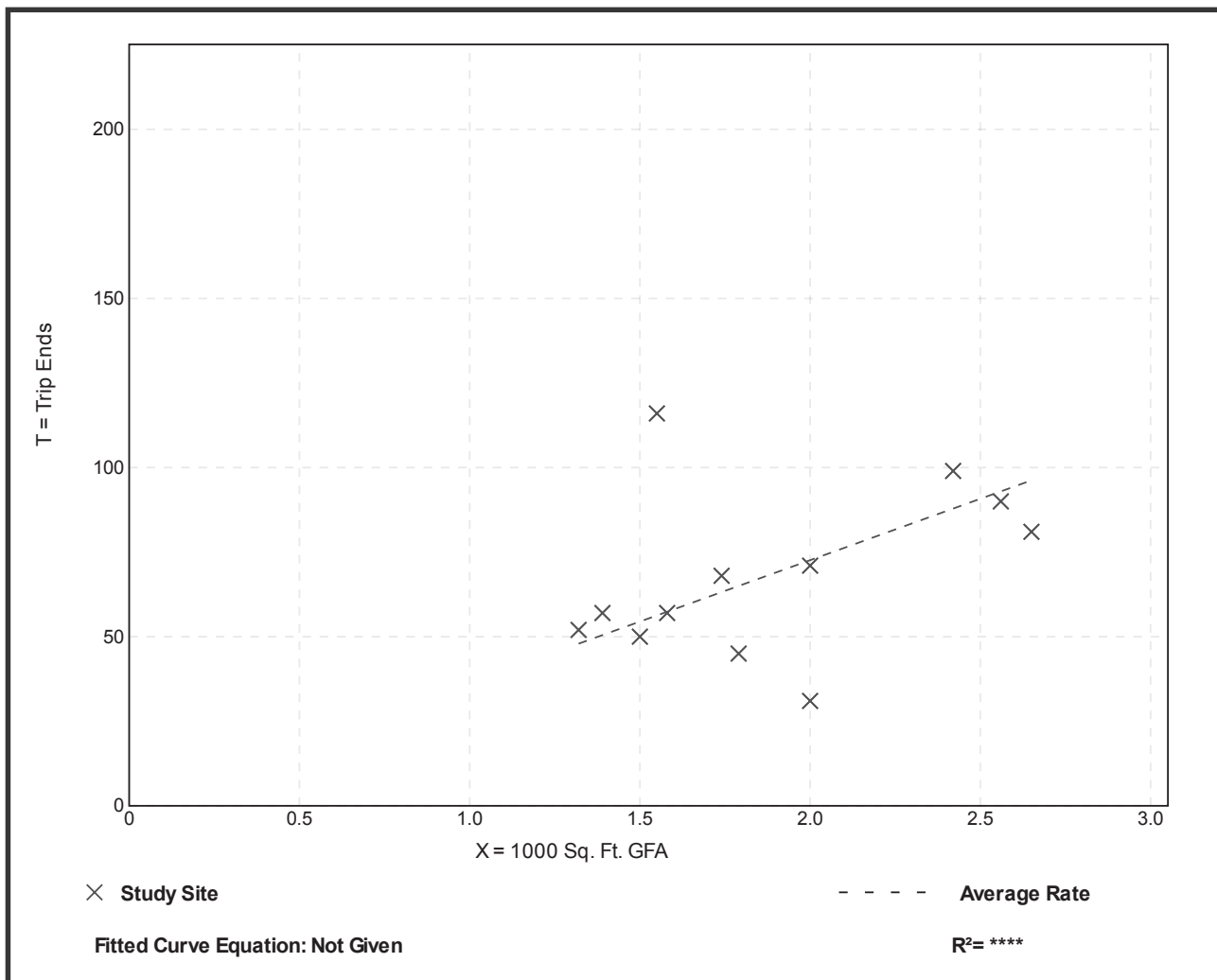
Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 12
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
36.31	15.50 - 74.84	13.22

Data Plot and Equation



Land Use: 937

Coffee/Donut Shop with Drive-Through Window

Description

This land use includes single-tenant coffee and donut restaurants with drive-through windows. Freshly brewed coffee and a variety of coffee-related accessories are the primary retail products sold at these sites. They may also sell other refreshment items, such as donuts, bagels, muffins, cakes, sandwiches, wraps, salads, and other hot and cold beverages. Some sites may also sell newspapers, music, CDs, and books. The coffee and donut shops contained in this land use typically hold long store hours (more than 15 hours) with an early morning opening. Also, limited indoor seating is generally provided for patrons; however, table service is not provided. Coffee/donut shop without drive-through window (Land Use 936), coffee/donut shop with drive-through window and no indoor seating (Land Use 938), bread/donut/bagel shop without drive-through window (Land Use 939), and bread/donut/bagel shop with drive-through window (Land Use 940) are related uses.

Additional Data

The sites were surveyed in the 1990s, the 2000s, and the 2010s in California, Colorado, Connecticut, Illinois, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New York, Ontario (CAN), Pennsylvania, Quebec (CAN), Tennessee, Vermont, Washington, and Wisconsin.

Specialized Land Use Data

One study provided data for a coffee/donut shop with a drive-through window that also sells donuts and ice cream (source 617). The trip generating characteristics of this site differed from the sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site had a gross floor area of 3,300 square feet. It generated 425 vehicle trips during the weekday AM peak hour of adjacent street traffic, and 236 vehicle trips during the weekday PM peak hour of adjacent street traffic.

Source Numbers

594, 599, 615, 617, 618, 621, 622, 635, 639, 712, 714, 725, 726, 728, 853, 854, 892, 903, 928, 959, 979, 982

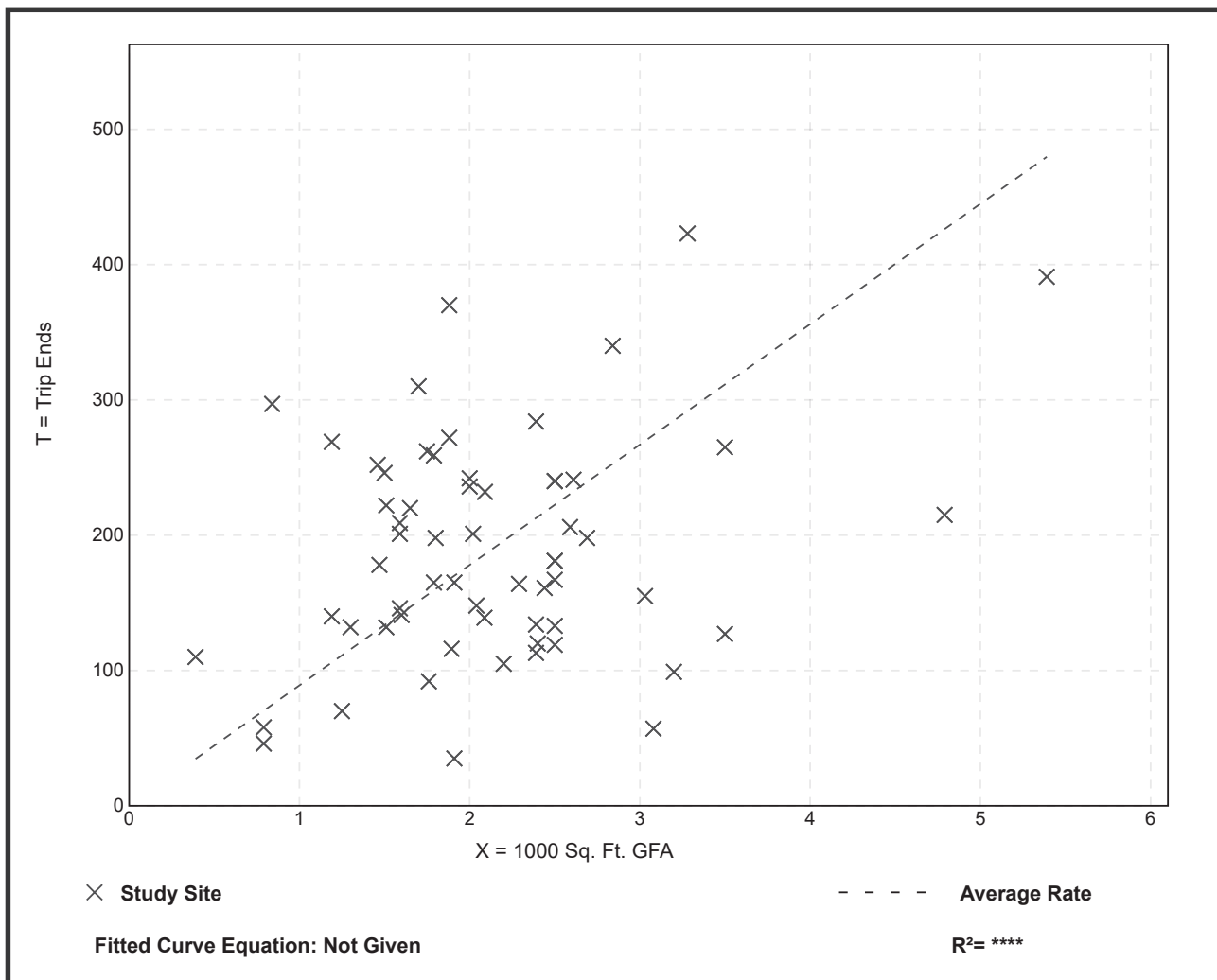
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 61
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
88.99	18.32 - 353.57	48.19

Data Plot and Equation



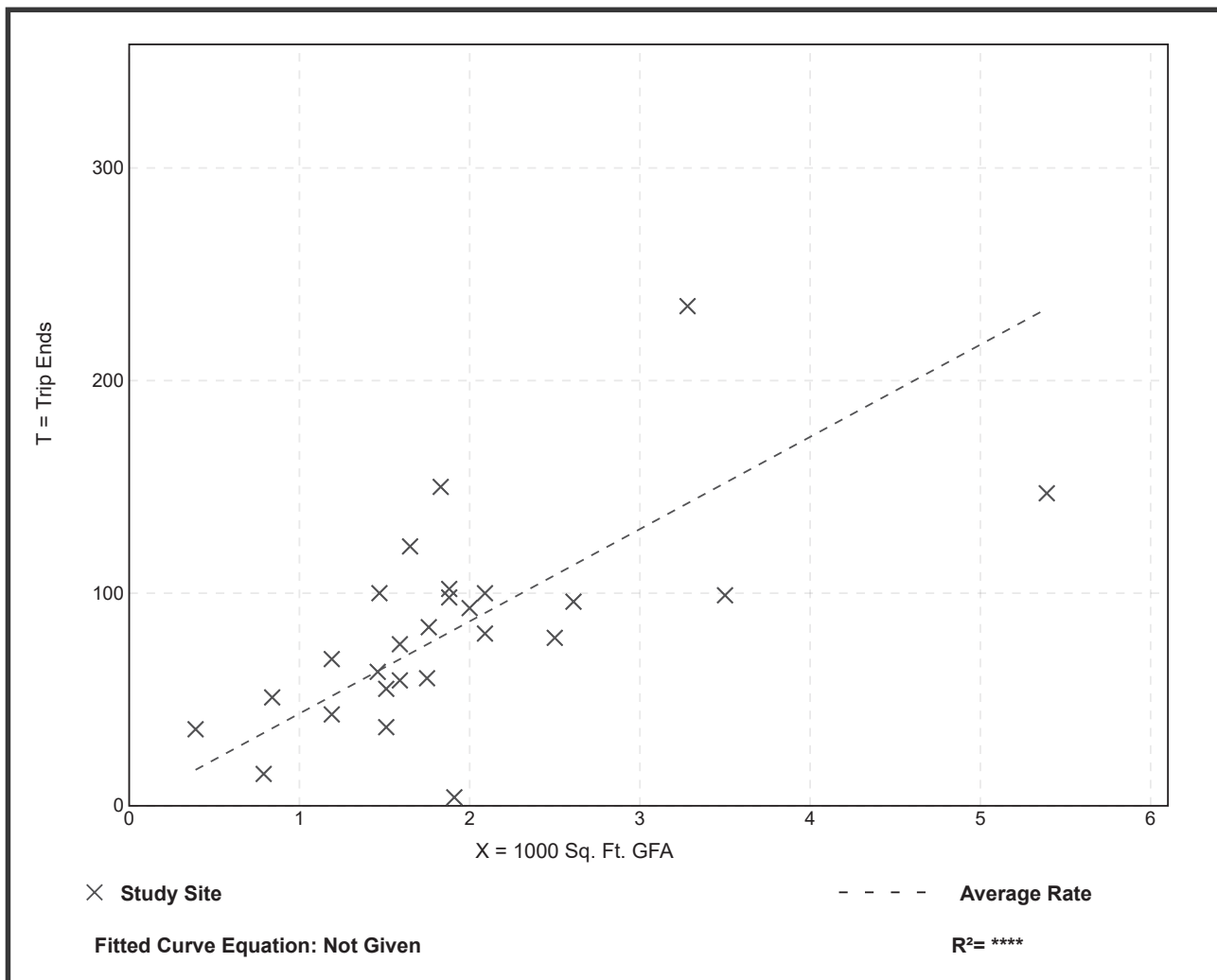
Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 26
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.38	2.09 - 92.31	18.88

Data Plot and Equation





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Subject:

Acoustic Study
7300 Royal Palm Blvd
Margate, FL 33063

Introduction

In drive-thru, the source of sound is mainly due to two reasons (1) the vehicle noise and (2) the communication system noise. In our case precautions will be made to control both of those factors. For the vehicle aspect, by its nature the path limits the speed of the approaching vehicles, and only vehicle intended to place orders will get into the path. For the communication system, adjustable speakers will be used to keep the outbound levels to the minimum necessary for being heard. And the speaker post will be placed close to the vehicle allowing to keep the outbound levels to a minimum.

Measurements

Since the site intended for this study does not have a communications system installed yet, the measurements were performed at two locations.

- (1) At the intended site, measurements were taken with:
 - a. Multiple vehicles, parked / running in the drive thru location,
 - b. A truck included with the vehicles used.
 - c. Simulated customer ordering in the location of the speaker.
 - d. A truck driving in the direction and approaching the drive thru
- (2) At another similar location measurements were taken with:
 - a. Multiple vehicles, parked / running in the drive thru,
 - b. A truck included with the vehicles used.
 - c. Multiple vehicles advancing in the drive thru.
 - d. The attendant speaking to the customer
 - e. The customer speaking back to the attendant.

The timing of the measurement was between 6:00 am – 6:30 am.

The proposed menu board and speaker location on the subject property are located 60 feet from the adjacent residential property boundaries. However, for allowing a safety margin measurements were taken at a distance of 50 feet from proposed speaker panel during simulations on the subject property and actual readings at existing locations. Please refer to Figure 2 for a plan showing the location of measurement on the subject property

The distance between the reading point and the intended speaker point is 50 feet.
The distance between the reading point and the actual speaker is 50 feet.

Measurements were done with: RISEPRO DIGITAL SOUND LEVEL METER 30-130 Db audio noise measure device HT-80a

For the first case the measurement showed a reading of 44 dba, with a peak when the truck was approaching the drive thru of 48 dba.

For the second case the measurement showed a reading between 51 dba – 52 dba with a peak of 54 dba when the attendant was communicating with the customer.



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Conclusion

Based on the data collected from existing locations and simulation of proposed operations at the subject property, all sound levels were found to remain below 55 dBA in accordance with the maximum noise levels permitted in Section 33-82 of the City of Margate Code of Ordinances.

Exhibit "A"

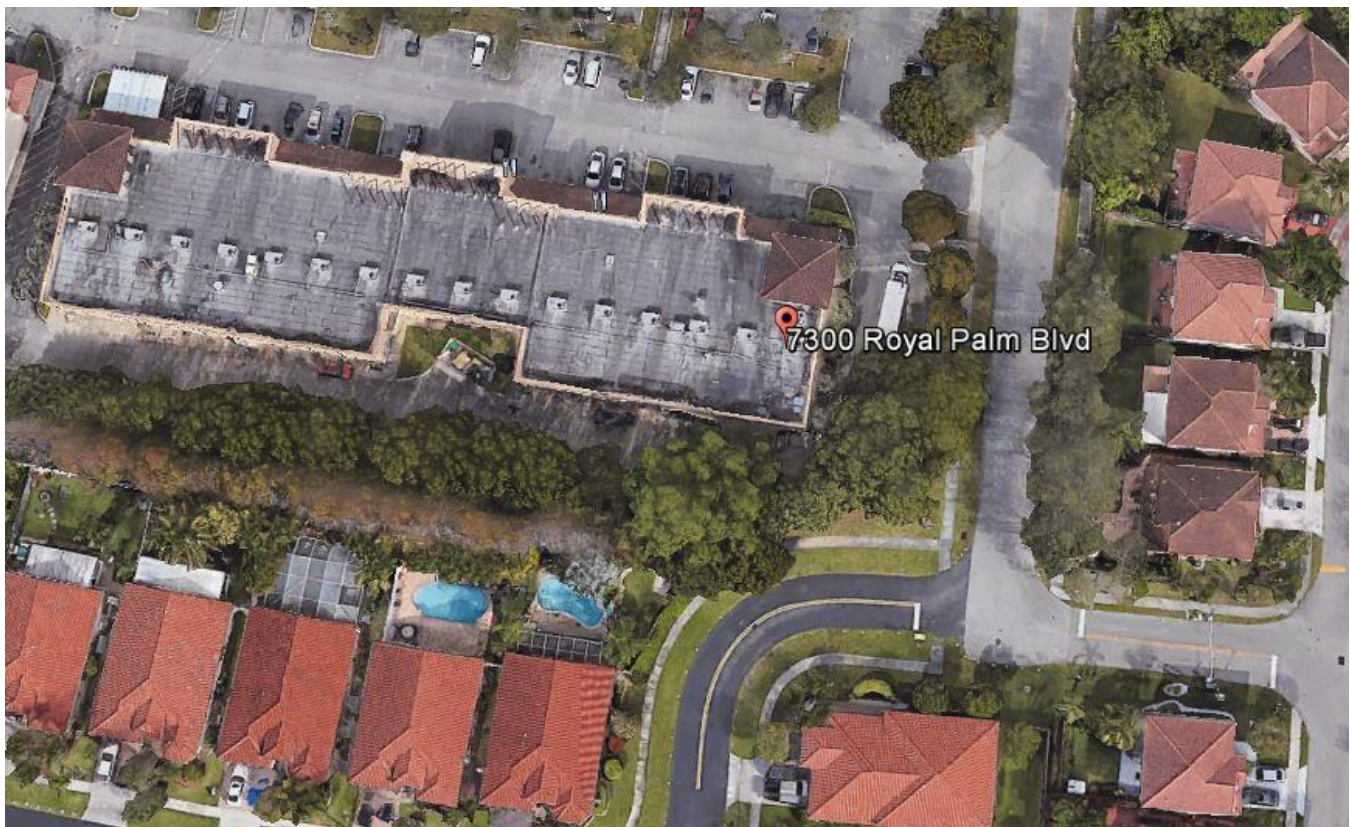


Figure 1 Site Vicinity

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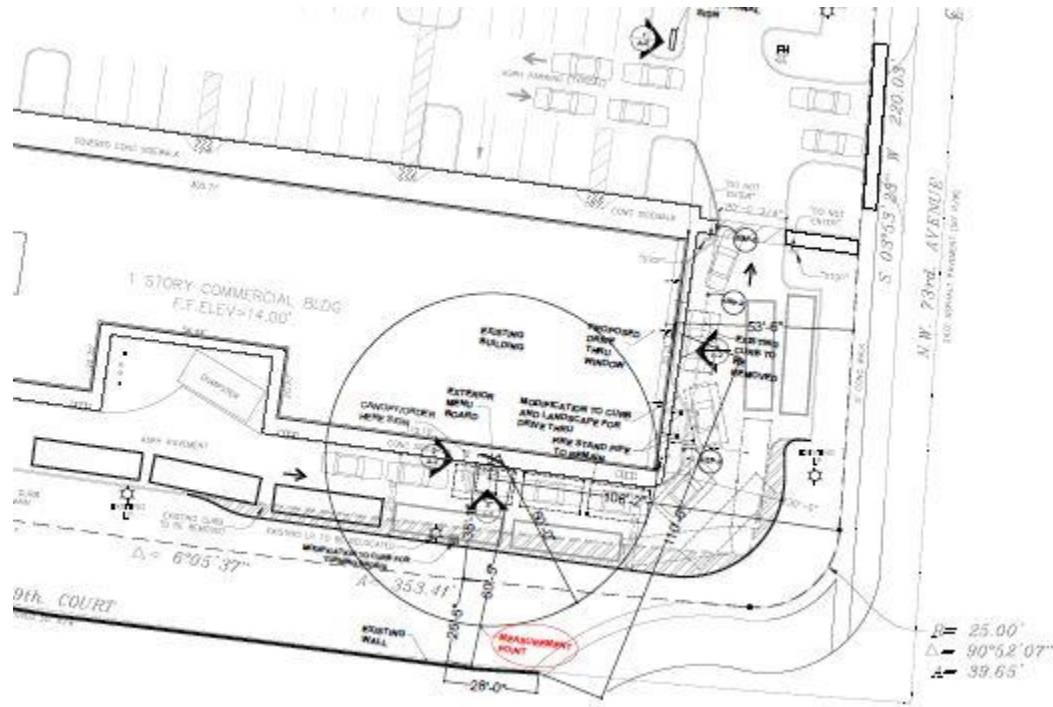


Figure 2 Relative intended speaker location and measurement point

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5516 NW 58th Ave
Coral Springs FL 33067
Tel. (954) 263-9318
ryehia@myacc.net

Ramzi R. Yehia PE, CGC, PhD
Florida License # 64833
Cert. of Authorization #27115

November 19, 2018