

RECEIVED
By the Clerk for the record.

JUL 17 2014

Item 1
Exhibit 1-A
Meeting BCC ZONING
(13-083)

Three Lakes

Summary of Access
Related Analysis &
Documentation

May 13, 2014



Zoning Meeting
Board of County Commissioners
 July 17, 2014

Prepared by: Nelson Diaz

EXHIBITS LIST

NO.	DATE	ITEM #	DESCRIPTION
			<u>TAMIAMI KENDALL INVESTMENTS, INC</u> <u>(14-5-CZ11-1(13-083))</u>
1	7/17/2014	1-A	Spiral booklet titled <u>Three Lakes Summary of Access Related Analysis & Documentation</u>
2	7/17/2014	1-B	Letter from KBP Consulting, Inc. regarding Three Lakes Trip Generation Analysis.
			<u>ADVANCE LEARNING CHARTER SCHOOL INC.</u> <u>(14-7-CC-2(14-017))</u>
3	7/17/2014	3-A	Letter from Miami-Dade Public School regarding Advance Learning Charter School Inc. - Zoning Requested Z2014000017 125.

The foregoing exhibits were submitted for the record on July 17, 2014 and transferred to the care, custody, and control of the Department of Regulatory and Economic Resources Planning & Zoning on August 7, 2014.

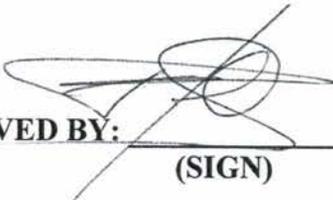
ATTEST:



HARVEY RUVIN, Clerk of Courts
 Clerk of Circuit and County Courts
 Miami-Dade County, Florida


 Deputy Clerk

RECEIVED BY:


 (SIGN)

Franklin Gales
 (PRINT)

8/7/14
 (DATE)

KBP CONSULTING, INC.

June 30, 2014

Mr. Jeff Evans, AICP
Development Associate
The Richman Group
477 S. Rosemary Avenue, Suite 301
West Palm Beach, Florida 33401

**Re: Three Lakes – Miami-Dade County, Florida
Trip Generation Analysis**

Dear Jeff:

Three Lakes is a proposed residential community planned to be located in the northwest quadrant of the intersection at SW 136th Street and SW 127th Avenue in Miami-Dade County, Florida. The subject site is currently vacant and there is no formal vehicular access to the site.

The subject site has been previously approved for one and one-half (1.5) acres of commercial / retail development and 104 residential townhome units. With an estimated Floor-Area-Ratio (FAR) of 0.30 for the commercial / retail element, this would yield approximately 19,600 square of retail space. The currently proposed development for this site is a rental residential community with 240 dwelling units. The purpose of this technical memorandum is to document the trip generation characteristics of each development scenario.

Trip Generation Analysis

The trip generation for this project was determined utilizing the trip generation rates and equations contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (9th Edition)*. Based upon this information, the weekday and peak hour trip generation rates / equations for approved and proposed development scenarios are as follows:

Shopping Center – ITE Land Use #820

- Weekday Trip Generation Rate: $\text{Ln}(T) = 0.65 \text{Ln}(X) + 5.83$
where T = number of trips and X = 1,000 square feet gross leasable area
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $\text{Ln}(T) = 0.61 \text{Ln}(X) + 2.24$ (62% in / 38% out)
 - PM Peak Hour: $\text{Ln}(T) = 0.67 \text{Ln}(X) + 3.31$ (48% in / 52% out)

Residential Condominium / Townhouse – ITE Land Use #230

- Weekday Trip Generation Rate: $\text{Ln}(T) = 0.87 \text{Ln}(X) + 2.46$
where T = number of trips and X = number of dwelling units
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $\text{Ln}(T) = 0.80 \text{Ln}(X) + 0.26$ (17% in / 83% out)
 - PM Peak Hour: $\text{Ln}(T) = 0.82 \text{Ln}(X) + 0.32$ (67% in / 33% out)

KBP CONSULTING, INC.

Apartment – ITE Land Use #220

- Weekday Trip Generation Rate: $T = 6.06 (X) + 123.56$
where T = number of trips and X = number of dwelling units
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $T = 0.49 (X) + 3.73$ (20% in / 80% out)
 - PM Peak Hour: $T = 0.55 (X) + 17.65$ (65% in / 35% out)

The resulting trip generation for the development scenarios is presented in Table 1 below.

Table 1 Trip Generation Summary Three Lakes - Miami-Dade County, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Previously Approved</i>								
Retail ¹	19,600 SF	2,355	36	22	58	96	105	201
Townhomes ²	104 D.U.	666	9	44	53	42	20	62
Total		3,021	45	66	111	138	125	263
<i>Currently Proposed</i>								
Apartment ³	240 D.U.	1,578	24	97	121	98	52	150
Total		1,578	24	97	121	98	52	150
Difference (Proposed - Approved)		(1,443)	(21)	31	10	(40)	(73)	(113)

Compiled by: KBP Consulting, Inc. (June 2014).
 Source: ITE Trip Generation Manual (9th Edition).

As indicated by the foregoing trip generation analysis, the proposed development scenario is projected to result in 1,443 fewer daily vehicle trips, 10 additional AM peak hour vehicle trips (21 fewer inbound trips and 31 additional outbound trips) and 113 fewer PM peak hour vehicle trips (40 fewer inbound trips and 73 fewer outbound trips).

Conclusions

Based upon the foregoing trip generation analysis, the proposed Three Lakes development scenario is expected to result in an insignificant increase in AM peak hour vehicle trips and a significant reduction in daily and PM peak hour vehicle trips when compared with the previously approved development scenario for this site. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.



Karl B. Peterson, P.E.
 Florida Registration Number 49897
 Engineering Business Number 29939

KBP CONSULTING, INC.

September 17, 2013

Mr. Gaspar Miranda, P.E.
Assistant Director
Miami-Dade County Public Works and
Waste Management Department – Highway Division
111 NW First Street, Suite 1510
Miami, Florida 33128

**Re: Three Lakes – Miami-Dade County, FL
Median Opening Request**

Dear Mr. Miranda:

Three Lakes is a proposed residential development to be located in the northwest quadrant of the intersection at SW 136th Street and SW 127th Avenue in unincorporated Miami-Dade County, Florida. This development will consist of 240 rental apartment units. A preliminary site plan is included as Attachment A to this letter.

As illustrated in the preliminary site plan, vehicular access to this site is planned through a single driveway located toward the west end of the property on SW 136th Street. This planned access point would allow eastbound left-turns in, westbound right-turns in and southbound left and right-turns out. As a result, the Applicant is requesting a median opening in order to accommodate the proposed access. The location of this proposed median opening will be approximately 370 feet (center to center) from the nearest opening to the west and approximately 400 feet from the intersection at SW 136th Street and SW 127th Avenue. An aerial depicting the location of this proposed median opening is presented in Attachment B.

A preliminary trip generation and trip distribution analysis for this project has also been prepared. According to trip generation rates published by the Institute of Transportation Engineers (ITE), the subject development is forecast to generate 121 AM peak hour trips and 150 PM peak hour trips. The supporting information for this analysis along with the projected driveway turning movement volumes are presented in Attachment C.

As depicted in the driveway assignment (Figure 1 of Attachment C), the projected peak eastbound left-turn volume is 78 vehicles which is minimal (i.e. one vehicle every 46 seconds). As such, the average number of eastbound left-turning vehicles, in a 2-minute period (using FDOT storage-length standards), is three (3). Therefore, a storage length of approximately 100 feet is projected to be sufficient for the proposed eastbound left-turn lane on SW 136th Street and will not interfere with adjacent median openings.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.

Karl B. Peterson, P.E.
Senior Transportation Engineer

Attachment A

Three Lakes Preliminary Site Plan

Attachment B

**Aerial Depicting
Proposed Median Opening Location**



Proposed
Three Lakes Site

Proposed
Project
Driveway

370 feet

400 feet



SW 127th Avenue

SW 136th Street

KBP
CONSULTING, INC.

Proposed Driveway & Median Opening Location

FIGURE B-1
Three Lakes
Miami-Dade County, Florida



Attachment C

Trip Generation, Trip Distribution & Driveway Assignment

TRIP GENERATION

The trip generation for this project was determined using the trip generation information published in the Institute of Transportation Engineers' (ITE) *Trip Generation (9th Edition)* report. Based upon this information, the weekday, AM peak hour, and PM peak hour trip generation rates for the proposed development are as follows:

Apartment – ITE Land Use #220

- Weekday Trip Generation Rate: $T = 6.06 (X) + 123.56$
where T = number of trips and X = number of dwelling units
- AM Peak Hour Trip Generation Rate: $T = 0.49 (X) + 3.73$ (20% in / 80% out)
- PM Peak Hour Trip Generation Rate: $T = 0.55 (X) + 17.65$ (65% in / 35% out)

Table 1 below summarizes the trip generation results for the proposed Three Lakes residential project.

Table 1 Trip Generation Summary Three Lakes - Miami-Dade County, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Proposed</i> Apartment ¹	240 D.U.	1,578	24	97	121	98	52	150

¹ Apartment, ITE Land Use #220
Compiled by: KBP Consulting, Inc. (August 2013).
Source: ITE Trip Generation (9th Edition) report.

As indicated by the trip generation analysis, this residential apartment project is estimated to result in 1,578 daily vehicle trips, 121 AM peak hour vehicle trips, and 150 PM peak hour vehicle trips.

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

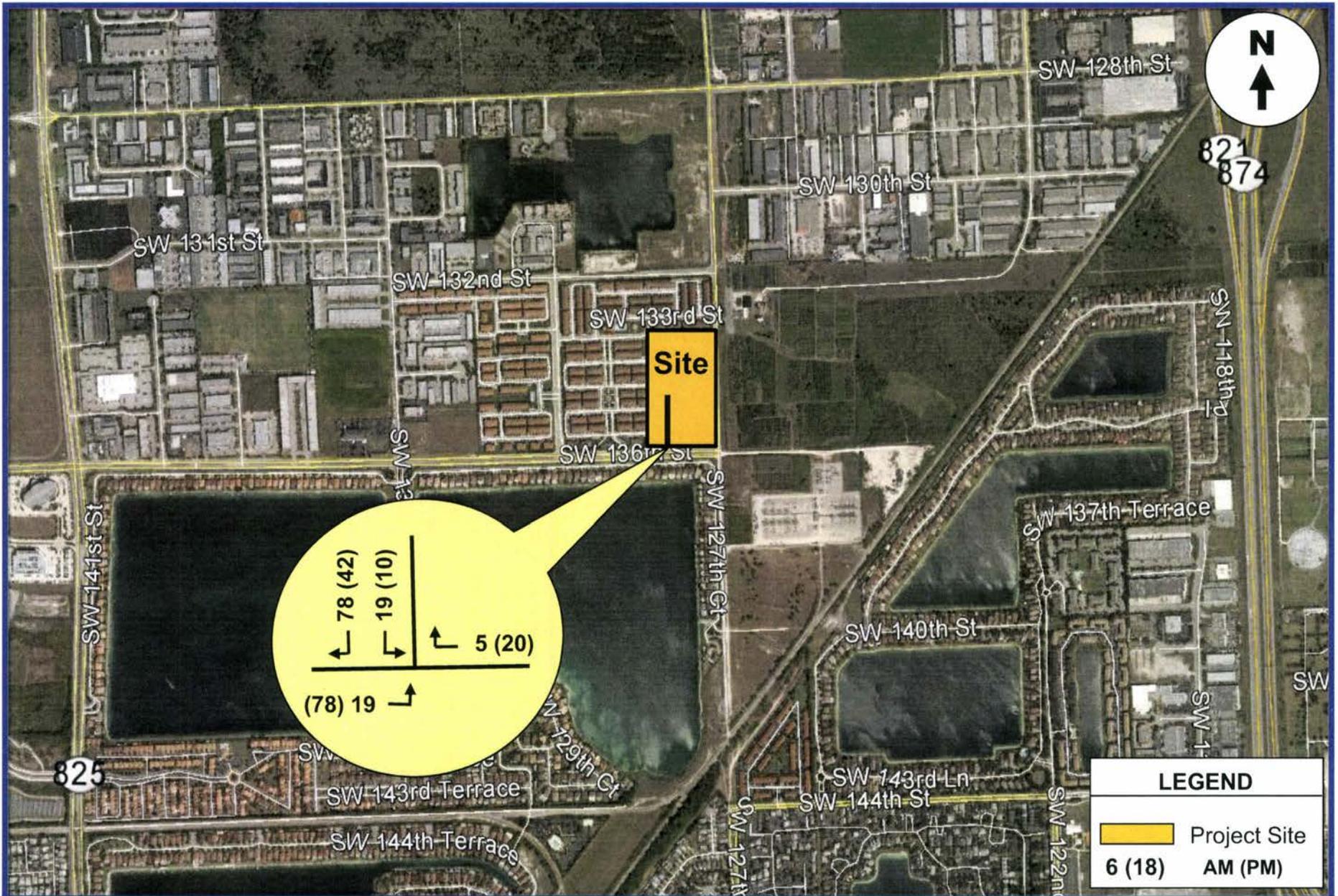
The trip distribution was based upon the Miami-Dade 2035 Long Range Transportation Plan (LRTP) Directional Distribution Report. Table 2 below summarizes the County's directional distribution data for traffic analysis zone 1213, which is applicable to the location of the subject project.

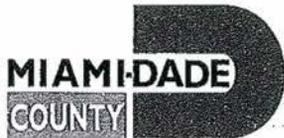
Direction	Percent Distribution
North	
Northwest	6.13%
Northeast	4.25%
South	
Southwest	22.17%
Southeast	41.97%
East	
Northeast	1.42%
Southeast	1.89%
West	
Northwest	6.60%
Southwest	15.57%
Total	100.00%

*Source: Miami-Dade 2035 LRTP Directional
Distribution Report*

Utilizing the trip distribution data documented in Table 2, while taking into consideration current traffic volumes / patterns, nearby land uses / destinations, and the project driveway location, the following traffic assignment for the proposed residential development was developed:

- ❑ 20% to and from the north via SW 127th Avenue
- ❑ 80% to and from the west via SW 136th Street





miamidade.gov

November 15, 2013
Mr. Karl B. Peterson, P.E.
KBP Consulting, Inc.
8400 North University Drive
Suite 309
Tamarac, Florida 33321

Public Works and Waste Management

2525 NW 62nd Street • Suite 5100
Miami, Florida 33147
T 305-514-6666

111 NW 1st Street • Suite 1610
Miami, Florida 33128
T 305-375-2960

Re: Three Lakes – Request for Median Opening on SW 136 Street

Dear Mr. Peterson:

In response to your correspondence dated September 17, 2013 regarding the referenced request, the Public Works and Waste Management Department (PWWM) has reviewed the attachments provided and offers the following comments.

For the current situation, the proposed driveway appears to have sufficient space from the nearest openings for the requested eastbound left-in and southbound left-out movements. However, a Miami-Dade Expressway Authority (MDX) project is expected to join SR 874/Don Shula Expressway with SW 128 Street, which will significantly increase eastbound left-turn traffic at SW 127 Avenue and SW 136 Street. These eastbound left turns will cause unsafe and deteriorated traffic operations at the proposed project driveway and at the intersection.

Therefore, your request for a median opening on SW 136 Street is denied due to the aforementioned and only right-in and right-out movements will be allowed at the proposed project driveway.

Nonetheless, the applicant may explore an additional access point along SW 127 Avenue to achieve desired movements. Furthermore, should you wish to revisit the request for a full median opening along SW 136 Street, taking into account the traffic impact from SR 874, please contact Dr. Joan Shen, P.E., Interim Chief, Traffic Engineering Division for traffic analysis requirements.

If you have any questions or comments, please do not hesitate to contact Mr. Gaspar Miranda, P.E., Assistant Director, Highway Engineering at (305) 375-2094.

Sincerely,

A handwritten signature in black ink, appearing to read "Antonio Cotarelo". The signature is written over a horizontal line.

Antonio Cotarelo, P.E. *for*
Interim County Engineer

cc: Gaspar Miranda, P.E., Assistant Director, Highway Engineering
Leandro Oña, P.E., Chief, Roadway Engineering and Right-of-Way Division
Joan Shen, Ph.D., P.E., PTOE, Interim Chief, Traffic Engineering Division
Lana Moorey, P.E., Project Manager, Roadway Engineering and Right-of-Way Division

Karl@traftech.biz

From: Khan, Muhammad (PWWM) <khanm@miamidade.gov>
Sent: Thursday, December 19, 2013 9:28 AM
To: Karl@traftech.biz; Joaquin@traftech.biz
Cc: Shen, Joan (PWWM); King-Allen, Irelene (PWWM)
Subject: RE: Three Lakes Apartments- SW 136 Street-SW 127 Avenue

Hi Joaquin/Karl as we discussed previously, with right-in/right-out access requested along SW 136 Street, you don't have to include SR 874 project in your study. Also, for 2015 analysis, with revised access condition you don't have to include CSX project along SW 127 Avenue either. Thanks,

Muhammad

From: Karl@traftech.biz [mailto:Karl@traftech.biz]
Sent: Monday, November 25, 2013 3:40 PM
To: Khan, Muhammad (PWWM)
Cc: Joaquin@traftech.biz
Subject: FW: Three Lakes Apartments- SW 136 Street-SW 127 Avenue

Good afternoon Muhammad.

We received the attached letter regarding our access request on SW 136th Street. As such, we are prepared to move forward with our analysis with the assumption that our access will be limited to a right-in / right-out only driveway on SW 136th Street.

Regarding item #1 below, our anticipated completion date for the apartment development is early 2015. We have reviewed the current MDX 5-Year Work Plan and see that the referenced SR 874 / SW 128 St project (#87410) is a design-build project that is scheduled for completion sometime after 2018. Since this completion date is well beyond the opening of our project, do we still need to include this project in our traffic analysis?

Also, do you know the status and timing of the SW 127th Avenue extension over the CSX? We have been told that it may be on hold or delayed.

Thank you for your help.

Karl

Karl B. Peterson, P.E.

Traf Tech ENGINEERING / **KBP** CONSULTING
8400 N. University Drive, Suite 309
Tamarac, Florida 33321
Tel: (954) 560-7103
Fax: (954) 582-0989
karl@traftech.biz

From: Joaquin@traftech.biz
Sent: Monday, October 14, 2013 8:05 AM
To: Karl@traftech.biz
Subject: FW: Three Lakes Apartments- SW 136 Street-SW 127 Avenue

From: Khan, Muhammad (PWWM) [<mailto:khanm@miamidade.gov>]
Sent: Friday, October 11, 2013 4:00 PM
To: Joaquin@traftech.biz
Cc: Shen, Joan (PWWM); Cohen, Jeff (PWWM); Gomez, Yamile (PWWM)
Subject: Three Lakes Apartments- SW 136 Street-SW 127 Avenue

Good afternoon Joaquin,

Currently PWWM is reviewing a median opening request along SW 136 Street for the same project. We suggest that the traffic impact study should be completed upon final determination of the access point(s).

Nonetheless, please see below regarding the traffic study methodology:

- 1) Background traffic growth should be projected for the future/project opening year volume. Please note that, a roadway project by MDX is programmed to join SR 874/Don Shula Expressway with SW 128 Street, which will increase eastbound left turning traffic at SW 136 Street significantly. Furthermore, there is another planned project for SW 127 Avenue to connect it across CSX rail line just south of SW 136 Street. Therefore, future analyses should incorporate the diverted and background traffic accordingly.
- 2) The project driveway and intersection of SW 127 Avenue and SW 136 Street should be analyzed for AM and PM peak hours for existing and future total traffic.
- 3) Proposed driveway and the intersection improvements would be determined upon review of the study.
- 4) Signal contribution may be required based on the project being located at the intersection of two major roads, SW 136 Street and SW 127 Avenue.
- 5) A separate review would be required for the entrance feature and site plan.

Should you have any questions, or need additional information, please do not hesitate to contact me. Thanks

Muhammad Asif Khan, P.E., PTP, PTOE
Traffic Engineering Division
Miami Dade County Public Works and Waste Management
111 NW 1st Street, Suite 1510, Miami, Florida, 33128-1970
Phone: 305-375-2030 - Fax: 305-372-6064
Email: khanm@miamidade.gov
<http://www.miamidade.gov/pubworks/>
"Delivering Excellence Every Day"
Please consider the environment before printing this email.

From: Joaquin@traftech.biz [<mailto:Joaquin@traftech.biz>]
Sent: Wednesday, October 09, 2013 10:18 AM
To: Khan, Muhammad (PWWM)
Cc: Shen, Joan (PWWM); Cohen, Jeff (PWWM)
Subject: RE: Three Lakes Apartments

Karl@traftech.biz

From: Khan, Muhammad (PWWM) <khanm@miamidade.gov>
Sent: Thursday, January 30, 2014 4:25 PM
To: Karl@traftech.biz
Cc: Shen, Joan (PWWM); Evans, Jeffrey; Richard B. Bochnovich P.E. (richb@cesmiami.com); Joaquin@traftech.biz; Salinas, Carlos (PWWM)
Subject: RE: Three Lakes- SR 2014001207 (2)
Attachments: RT lane criteria.pdf

Good afternoon Karl, thanks for the responses.

Upon review of the provided responses, the Public Works and Waste Management Department (PWWM) offers the following comments:

- 1) The PWWM has also evaluated the project driveway based on the attached FDOT criteria in order to identify the need of exclusive right-turn lanes at unsignalized driveways/intersections. As per this guideline and project specific conditions, an exclusive right-turn lane should be provided.
- 2) Even though we allowed the applicant not to use heavy traffic due to the SR 874 expressway connection for LOS analysis, it should be noted that this funded project will bring significant amount of traffic along SW 136 Street in westbound direction.

Therefore, for safer deceleration of the westbound right-turn entering vehicles to the project, it is required that an exclusive right-turn lane should be provided at the project driveway along SW 136 Street. Alternatively, as suggested previously, the applicant may explore an additional right-in/out driveway along SW 127 Avenue. This will reduce the entering traffic at the project significantly.

If the project team still disagrees with PWWM staff comments and wishes to further discuss, please feel free contact Mr. Carlos Salinas of our office at (305) 375-2030 to arrange a meeting.

Regards,

Muhammad Asif Khan, P.E., PTP, PTOE, Professional Engineer
Traffic Engineering Division
Miami Dade County Public Works and Waste Management
111 NW 1st Street, Suite 1510, Miami, Florida, 33128-1970
Phone: 305-375-2030 - Fax: 305-372-6064
khanm@miamidade.gov
<http://www.miamidade.gov/pubworks/>
"Delivering Excellence Every Day"
Please consider the environment before printing this email.

From: Karl@traftech.biz [mailto:Karl@traftech.biz]
Sent: Wednesday, January 22, 2014 3:18 PM
To: Khan, Muhammad (PWWM)
Cc: Evans, Jeffrey; Richard B. Bochnovich P.E. (richb@cesmiami.com); Joaquin@traftech.biz
Subject: RE: Three Lakes- SR 2014001207

Good afternoon Muhammad. And, thank you so much for your prompt review of the traffic analysis prepared for the Three Lakes project to be located at SW 136th Street and SW 127th Avenue in Miami-Dade County.

The entrance features have been reviewed by RER and are undergoing minor modifications. Once the entrance design is finalized, I will update the traffic study to include the final site plan in Appendix A, as requested.

Regarding item #1 and the recommended westbound right-turn lane, I have consulted with the developer, architect and counsel. While we acknowledge that this project will result in approximately 98 PM peak hour westbound right turning vehicles into the site, the future background westbound through vehicles at this location is projected to be 399 vehicles during the PM peak hour at project buildout in 2015. In our professional opinion, the right-turn lane in question is not necessarily warranted given the sufficiently low traffic volumes (i.e. project traffic along with the future background traffic) at this location which is a four-lane divided roadway. Furthermore, the inclusion of this right-turn lane will have significant and negative impacts on the site plan, which has been thoroughly reviewed by various departments at Miami-Dade County, and the project schedule.

Please let me know if you concur and if you have any questions, please do not hesitate to contact me.

Sincerely,

Karl

From: Khan, Muhammad (PWWM) [mailto:khanm@miamidade.gov]
Sent: Friday, January 17, 2014 3:34 PM
To: Karl@traftech.biz
Cc: Shen, Joan (PWWM); Gomez, Yamile (PWWM); Eymil, Yelenys (PWWM)
Subject: RE: Three Lakes- SR 2014001207

Good afternoon Karl,

Upon review of the revised traffic impact study for the subject project, dated December 2013, the Public Works and Waste Management Department (PWWM) offers the following comments:

- 1) As a result of the increased PM westbound right-turn entering vehicle volume (98 vehicles per hour) at the only project driveway along SW 136 Street, it is highly recommended that an exclusive westbound right-turn lane should be provided at this project driveway.
- 2) Entrance features should be reviewed and approved by the Regulatory and Economic Resources Department (RER).
- 3) The site plan shown in the Appendix A, still depicts an open median and a southbound left-turn existing movement at the project driveway along SW 136 Street. The plan should be updated and the appendix should be revised accordingly.

Should you have any questions or require additional information, please do not hesitate to contact our office at 305-375-2030.

Muhammad Asif Khan, P.E., PTP, PTOE, Professional Engineer

Traffic Engineering Division
Miami Dade County Public Works and Waste Management
111 NW 1st Street, Suite 1510, Miami, Florida, 33128-1970
Phone: 305-375-2030 - Fax: 305-372-6064

khanm@miamidade.gov

<http://www.miamidade.gov/pubworks/>

"Delivering Excellence Every Day"

Please consider the environment before printing this email.

From: Karl@traftech.biz [<mailto:Karl@traftech.biz>]

Sent: Friday, January 17, 2014 2:31 PM

To: Khan, Muhammad (PWWM)

Subject: RE: Three Lakes

Good afternoon Muhammad.

Do you have any news on our traffic study?

Thanks and have a nice weekend.

Karl

**RIGHT TURN LANES****7.1****EXCLUSIVE RIGHT TURN LANES AT UNSIGNALIZED DRIVEWAYS**

Exclusive right turn lanes are useful where a combination of high roadway speeds, and high right turn volumes into a driveway are expected. Congestion on the roadway may also be a good reason to use an exclusive right turn lane. If properly built, they remove the turning vehicle from the through lanes, thereby decreasing the operational impact of right turn vehicles on the through traffic.

The *Standard Index* has no specific guidance on warrants for right turn lanes into unsignalized driveways. The guidelines in this chapter were developed to assist in the decision-making process. However, *Standard Index 301* contains the standards necessary for the design of right turn lanes. The picture in Index 301 shows a left turn lane, but the design features are the same, except for the fact that queues would not usually be present on unsignalized driveways.

7.2

WHEN SHOULD WE BUILD RIGHT TURN LANES?

Exhibit 44
Recommended Guidelines
for Exclusive Right Turn
Lanes to Unsignalized*
Driveway

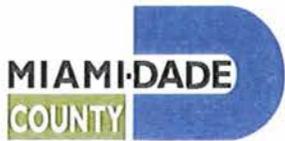
Roadway Posted Speed Limit	Number of Right Turns Per Hour
45 mph or less	80-125 (see note 1)
Over 45 mph	35-55 (see note 2)

*May not be appropriate for signalized locations where signal phasing plays an important role in determining the need for right turn lanes.

1. The lower threshold of 80 right turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (50 feet or greater).
2. The lower threshold of 35 right turn vehicles per hour would be most appropriately used on higher volume two-lane roadways where lateral movement is restricted. The 55 right turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with large entry radius (50 feet or greater).

Note: A posted speed limit of 45 mph may be used with these thresholds if the operating speeds are known to be over 45 mph during the time of peak right turn demand.

Note on Traffic projections: Projecting turning volumes is, at best, a knowledgeable estimate. Keep this in mind especially if the projections of right turns are close to meeting the guidelines. In that case, consider requiring the turn lane.



miamidade.gov

Public Works and Waste Management

2525 NW 62nd Street • Suite 5100

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Miami, Florida 33128

T 305-375-2960

March 4, 2014

Jeff Evans, Development Associate
The Richman Group
477 S. Rosemary Avenue, Suite 301
West Palm Beach, FL 33401

Re: Requested Median Cut on SW 136 Street and Required Turn Lane on SW 136th Street

Dear Mr. Evans,

In regards to the referenced subject, the Miami Dade County Public Works and Waste Management Department (PWWM) has reviewed the Site Plan Approval and Rezoning request made by the Richman Group of Florida for the proposed Three Lakes Apartment Project (Z-2013000083). The Department's initial review resulted in denial of the requested median cut on 136 Street at the project entrance. However, based on additional information provided, the Department now supports a median cut at the projects' inbound driveway for eastbound left-turn traffic only and does not support southbound, left-turn exiting traffic onto SW 136 Street through this proposed median cut.

Please note that with the eastbound left-turn lane now approved, the peak hour westbound traffic entering the project will be significantly reduced. As such, the need for an exclusive right-turn lane at the projects' driveway along SW 136 Street is no longer warranted and shall not be required.

Should you have any additional questions, please feel free to contact Dr. Joan Shen, P.E., PTOE, Chief, Traffic Engineering Division at (305) 375-2030.

Regards,

A handwritten signature in blue ink, appearing to read "Antonio Cotarelo".

Antonio Cotarelo, P.E.
County Engineer/Assistant Director

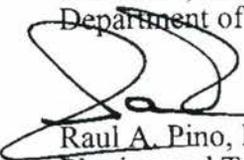
Cc: Gaspar Miranda, P.E., Assistant Director, Highway Engineering
Dr. Joan Shen, P.E., PTOE, Chief, Traffic Engineering Division
Leandro Ona, P.E., Chief, Roadway Engineering and Right-of-Way

Memorandum



Date: February 28, 2014

To: Eric Silva, Assistant Director
Department of Regulatory and Economic Resources

From: 
Raul A. Pino, PLS, Chief
Platting and Traffic Review Section
Department of Regulatory and Economic Resources

Subject: Z2013000083
Name: The Richman Group of Fl, Inc.
Location: Lying North of SW 136 Street and West of SW 127 Avenue
Section 14 Township 55 South Range 39 East

The Department of Regulatory and Economic Resources Platting and Traffic Review Section has reviewed the subject application and objects for the following reasons:

This Department objects to the request to permit 372 parking spaces where 399 spaces are required. Fewer spaces may result in parking within public right-of-way where it is not permitted.

The entrance feature design needs to be reworked. Please contact Mohammed Mansuri at 305-375-2707 for details.

Applicant must provide a secondary exit onto SW 127th Avenue.

Interior sidewalks that are adjacent to asphalt drives must have a minimum width of 6 feet.

This land requires platting in accordance with Chapter 28 of the Miami-Dade County Code. Any right-of-way dedications and/or improvements required will be accomplished thru the recording of a plat.

Additional improvements may be required at time of permitting.

This application **does** meet the traffic concurrency criteria for an Initial Development Order. It will generate **149 PM** daily peak hour vehicle trips. The traffic distribution of these trips to the adjacent roadways reveals that the addition of these new trips **does not** exceed the acceptable level of service of the following roadways:

Sta.#		LOS present	LOS w/project
9784	SW 127 Ave. s/o SW 104 St	D	D
9814	SW 137 Ave. s/o SW 120 St.	C	C
9816	SW 137 Ave/ s/o SW 136 St.	C	C
9760	SW 120 St. w/o SW 122 Ave.	D	D

The request herein, constitutes an Initial Development Order only, and one or more traffic concurrency determinations will subsequently be required before development will be permitted.

KBP CONSULTING, INC.

February 14, 2014

Mr. Jeff Evans, AICP
Development Associate
The Richman Group
477 S. Rosemary Avenue, Suite 301
West Palm Beach, FL 33401

**Re: Three Lakes – Queuing Analysis
Miami-Dade County, Florida**

Dear Jeff:

As requested, we have prepared a vehicle queuing analysis for the proposed Three Lakes project in Miami-Dade County. This project will consist of 240 residential apartment dwelling units with a gated vehicular entrance on SW 136th Street just west of SW 127th Avenue. This driveway will have two (2) resident entry lanes and one (1) lane available for both residents and visitors.

As documented in the trip generation analysis that was previously prepared for this project, the maximum inbound traffic volume anticipated at the entrance is approximately 98 vehicles per hour (or, one inbound vehicle every 37 seconds). This analysis is based upon Institute of Transportation Engineers (ITE) trip generation rates for residential apartment dwelling units.

According to the Urban Land Institute (ULI), approximately eight percent (8%) of residential traffic is associated with visitors. Wait times for residents at gate systems similar to that proposed at Three Lakes are typically less than ten (10) seconds. Wait times for visitors, on the other hand, are approximately two (2) minutes.

With wait times of ten (10) seconds or less for residents, queuing will not be an issue for the resident lanes. For visitors, it is projected that a peak hourly demand will be approximately ten (10) vehicles. This translates to one (1) visitor vehicle every six (6) minutes, on average. With a two (2) minute processing time per vehicle, the typical vehicle queue for visitors will be one (1) vehicle. For planning purposes, it is advisable to assume that two (2) visitor vehicles will arrive simultaneously (i.e. a typical “worst-case” scenario). Therefore, the maximum queue would be two (2) vehicles, or 50 feet (assuming an effective vehicle length of 25 feet, as per Florida Department of Transportation standards).

Based upon our review of the most recent site plan provided on February 14, 2014, it appears that we have more than adequate space (i.e. greater than 50 feet) to accommodate a two (2) vehicle queue in the visitor entry lane without impacting the ability of other vehicles to access the site or circulate in the entry area.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.



Karl B. Peterson, P.E.
Senior Transportation Engineer

Three Lakes

SW 136th Street and SW 127th Avenue
Miami-Dade County, Florida

TRAFFIC STUDY

prepared for:
The Richman Group

KBP CONSULTING, INC.

December 2013
Updated May 2014

Three Lakes

SW 136th Street and SW 127th Avenue

Miami-Dade County, Florida

Traffic Study

December 2013

Updated May 2014

Prepared for:

The Richman Group
477 S. Rosemary Avenue
Suite 301
West Palm Beach, FL 33401

Prepared by:

KBP Consulting, Inc.
8400 N. University Drive, Suite 309
Tamarac, Florida 33321
Phone: (954) 560-7103
Fax: (954) 582-0989

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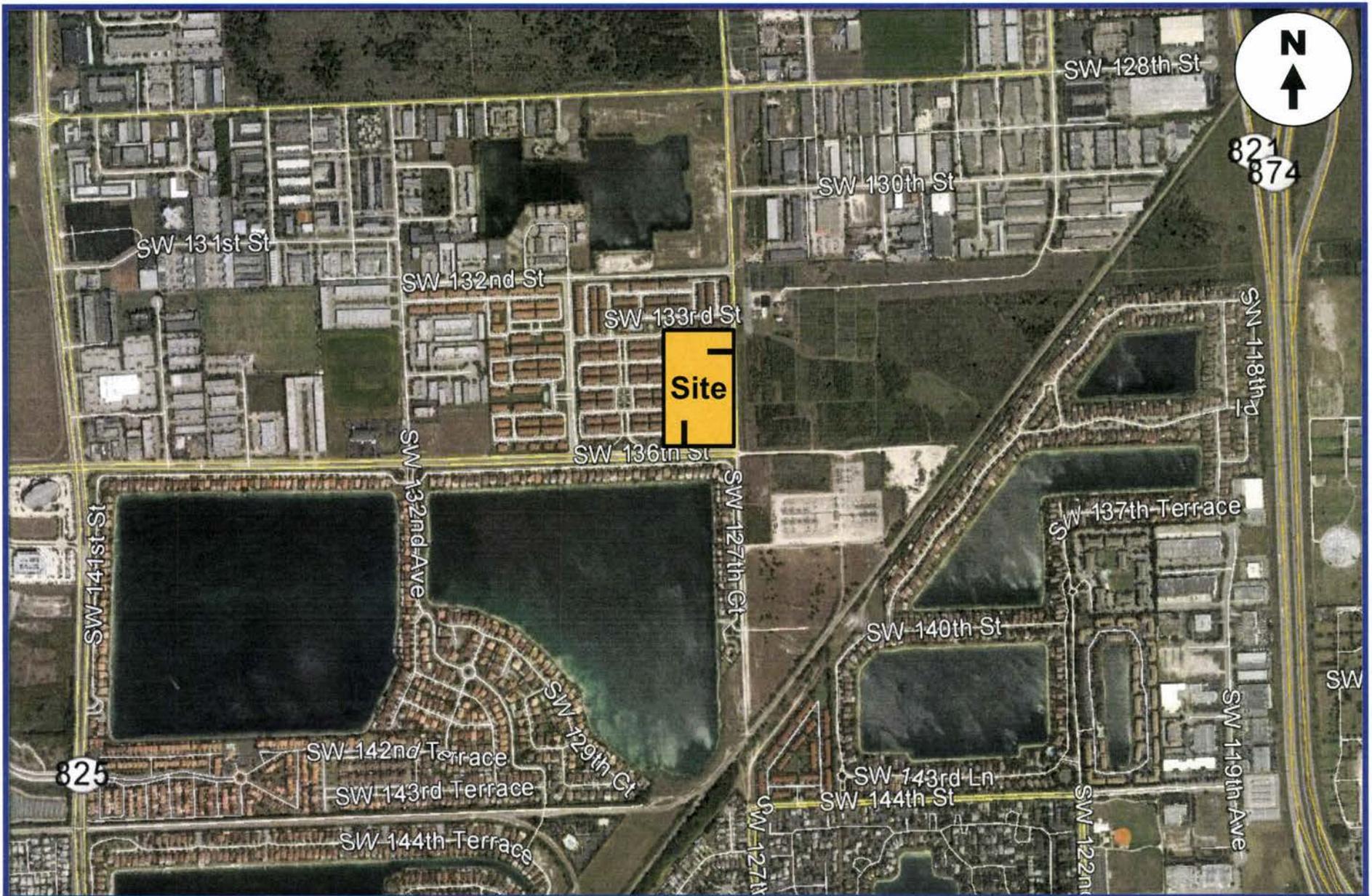
Appendices

INTRODUCTION

Three Lakes is a proposed residential community planned to be located in the northwest quadrant of the intersection at SW 136th Street and SW 127th Avenue in Miami-Dade County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

KBP Consulting, Inc. has been retained by The Richman Group to conduct a traffic impact study in connection with the development of this community. This study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into seven (7) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Analyses
7. Summary & Conclusions



KBP
CONSULTING, INC.

Project Location Map

FIGURE 1
Three Lakes
Miami-Dade County, Florida

INVENTORY

Existing Land Use and Access

The subject 11 acre (+/-) site (approximately 10 acres net) for the Three Lakes project is currently vacant and there is no formal vehicular access to the site.

Proposed Land Use and Access

Three Lakes is a proposed rental residential community with 240 dwelling units. Vehicular access to the subject site will be provided by a left-turn in / right-turn-in / right-turn-out only driveway to be located toward the west end of the property on SW 136th Street. In addition, an egress only driveway will be located on SW 127th Avenue toward the north end of the site. This driveway will allow both right-turn and left-turn out movements.

The proposed project is anticipated to be built and occupied by Spring 2015. Appendix A contains the proposed site plan for the Three Lakes project. (Note that the site plan presented in the appendix reflects the initially proposed full median opening at the project driveway on SW 136th Street. As a result of the coordination with Miami-Dade County, the driveway configuration is in the process of being modified. The updated plan will be provided at a later date.)

EXISTING CONDITIONS

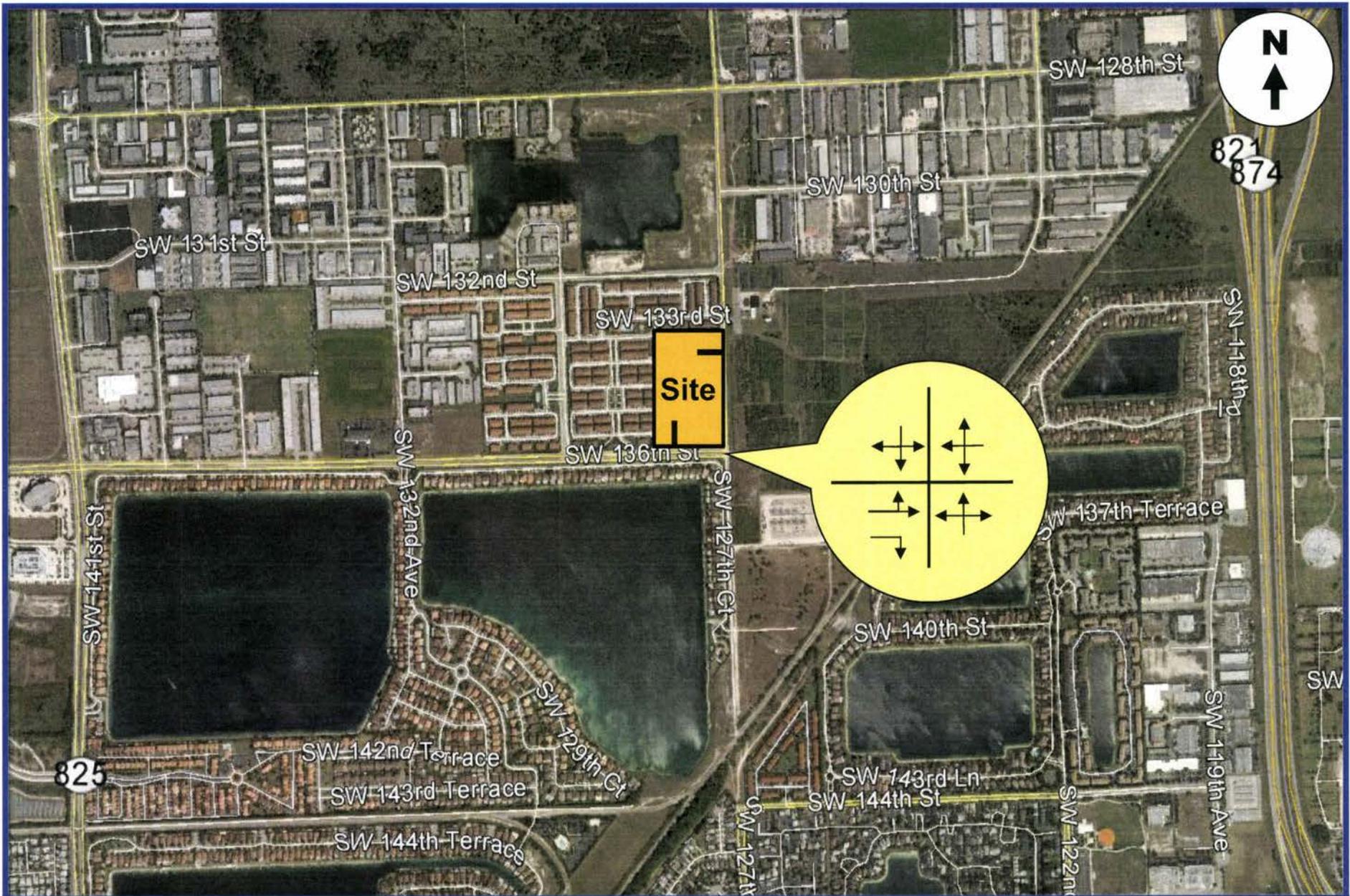
This section of the report addresses the transportation system located in the vicinity of the Three Lakes site.

Roadway System

The roadway system located in the immediate vicinity of the project includes SW 136th Street along the south side of the site and SW 127th Avenue along the east side of the site. SW 136th Street is a four-lane divided principal arterial roadway oriented in the east-west direction. SW 127th Avenue is a two-lane arterial roadway oriented in the north-south direction.

Study Intersections

The intersection of SW 136th Street and SW 127th Avenue was identified as the location to be evaluated as part of this analysis. Additionally, the project driveway on SW 136th Street and the project driveway on SW 127th Avenue are included in the evaluation. Figure 2 depicts the existing lane geometry of the intersection of SW 136th Street and SW 127th Avenue.



KBP
CONSULTING, INC.

Existing Lane Geometry

FIGURE 2
Three Lakes
Miami-Dade County, Florida

TRAFFIC COUNTS

KBP Consulting, Inc., in association with Trident Engineering, Inc., collected intersection turning movement counts at the intersection of SW 136th Street and SW 127th Avenue. The intersection turning movement counts were collected on Wednesday, December 11, 2013 during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM). Figure 3 summarizes the results of this traffic data collection effort. Appendix B contains the traffic data as collected in the field.

TRIP GENERATION

The trip generation for this project was determined using the trip generation information published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual (9th Edition)*. Based upon this information, the weekday, AM peak hour, and PM peak hour trip generation rates for the proposed development are as follows:

Apartment – ITE Land Use #220

- Weekday Trip Generation Rate: $T = 6.06 (X) + 123.56$
where T = number of trips and X = number of dwelling units
- AM Peak Hour Trip Generation Rate: $T = 0.49 (X) + 3.73$ (20% in / 80% out)
- PM Peak Hour Trip Generation Rate: $T = 0.55 (X) + 17.65$ (65% in / 35% out)

Table 1 below summarizes the trip generation results for the proposed Three Lakes residential project.

Table 1 Trip Generation Summary Three Lakes - Miami-Dade County, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Proposed</i> Apartment ¹	240 D.U.	1,578	24	97	121	98	52	150

¹ Apartment, ITE Land Use #220

Compiled by: KBP Consulting, Inc. (May 2014).

Source: ITE Trip Generation Manual (9th Edition).

As indicated by the trip generation analysis, this residential apartment project is estimated to result in 1,578 daily vehicle trips, 121 AM peak hour vehicle trips (24 inbound and 97 outbound), and 150 PM peak hour vehicle trips (98 inbound and 52 outbound).

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution was based upon the Miami-Dade 2035 Long Range Transportation Plan (LRTP) Directional Distribution Report. Table 2 below summarizes the County's directional distribution data for traffic analysis zone 1213, which is applicable to the location of the subject project.

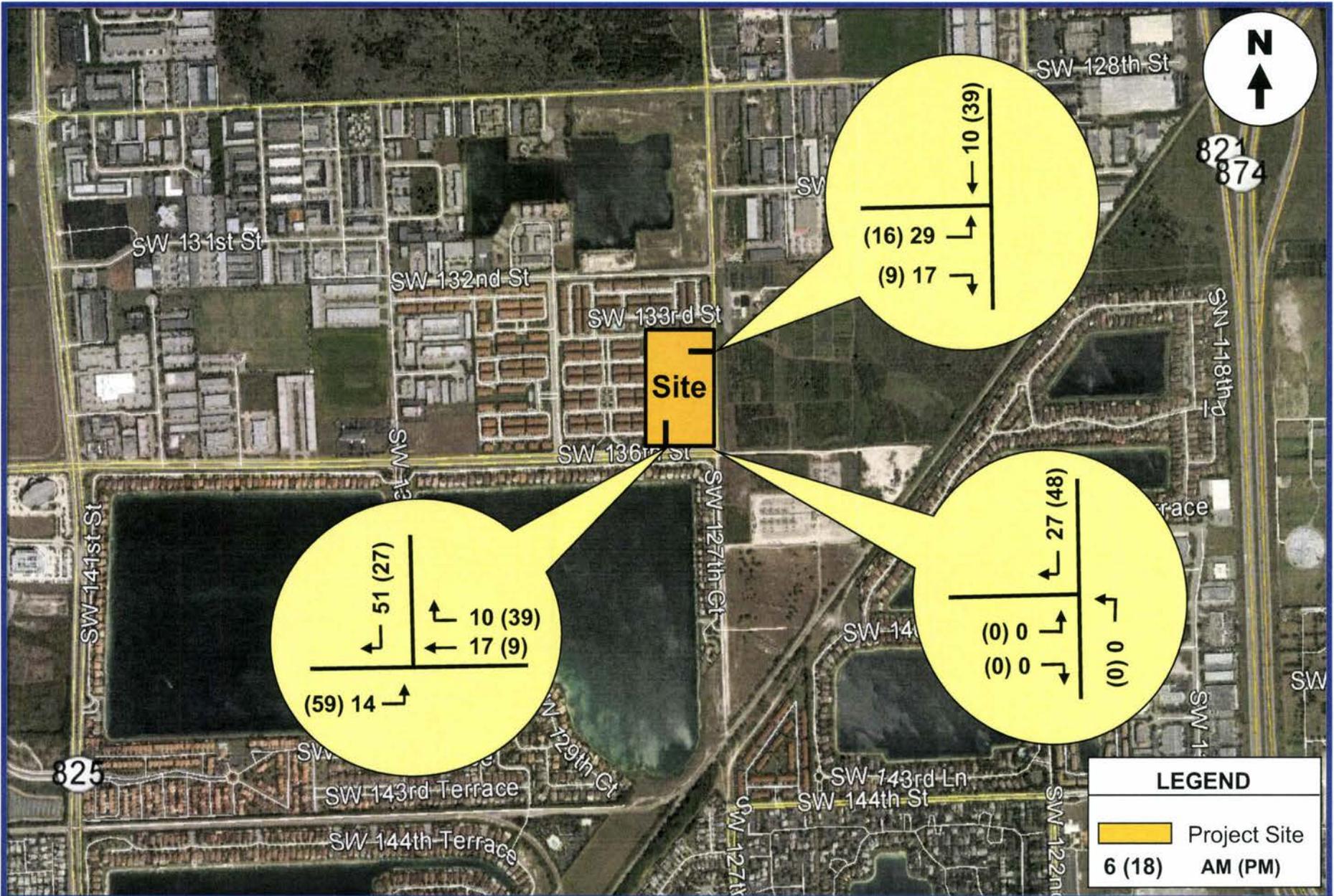
Table 2	
Project Trip Distribution	
Three Lakes - Miami-Dade County, Florida	
Direction	Percent Distribution
North	Northwest 6.13%
	Northeast 4.25%
South	Southwest 22.17%
	Southeast 41.97%
East	Northeast 1.42%
	Southeast 1.89%
West	Northwest 6.60%
	Southwest 15.57%
Total	100.00%

*Source: Miami-Dade 2035 LRTP Directional
Distribution Report*

Utilizing the trip distribution data documented in Table 2, while taking into consideration current traffic volumes / patterns, nearby land uses / destinations, the existing roadway network, and the project driveway location, the following traffic assignment for the proposed residential development was developed:

- ❑ 40% to and from the north via SW 127th Avenue
- ❑ 60% to and from the west via SW 136th Street

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The project traffic assignment is summarized in Figure 4.



PLANNED AND PROGRAMMED ROADWAY IMPROVEMENTS

A review of the Miami-Dade County MPO's 2013 Transportation Improvement Program (TIP) and the Miami-Dade MPO 2035 Long Range Transportation Plan (LRTP) was conducted with regard to the future transportation network improvements within the project study area. At the present time, no capacity enhancement projects are planned within the project study area *and* prior to the build-out timeframe for this development.

TRAFFIC ANALYSES

This section of the study is divided into two (2) parts. The first part of this section involves the development of the future (2015) traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Future, build-out year (2015) traffic volumes were developed for the project study area in the following manner:

- **Average Peak Season Conversion Factor:** Traffic data collected on December 11, 2013 was reviewed with respect to average peak season conditions. Based on FDOT's Peak Season Factor Category report (see Appendix C), the adjustment factor for data collected during this time period is 1.02.
- **Historic Growth:** Research relative to the background traffic growth in the area was conducted. FDOT maintains several traffic count stations in the general area of the subject project; however most do not have data prior to 2012. The closest to the site and with available historical traffic count data is as follows:
 - Site #7010 – SW 152nd Street 0.35 mile west of SW 117th Avenue

The historic traffic count data for this location is presented in Appendix D. As indicated by this data, traffic volumes have decreased in recent years. In spite of this, and in order to assess the overall impacts with a conservative approach, an annual growth rate of 2.0% was applied to all turning movements within the project study area.

The future traffic calculations (peak season adjustments, background traffic growth, and the traffic associated with the proposed Three Lakes development) for the study are documented in tabular format in Appendix E.

Figures 5 and 6 present the future traffic volumes for the study area. Figure 5 includes future background traffic only (without the proposed project) and Figure 6 includes the additional traffic anticipated to be generated by the Three Lakes development.

Level of Service (LOS) Analyses

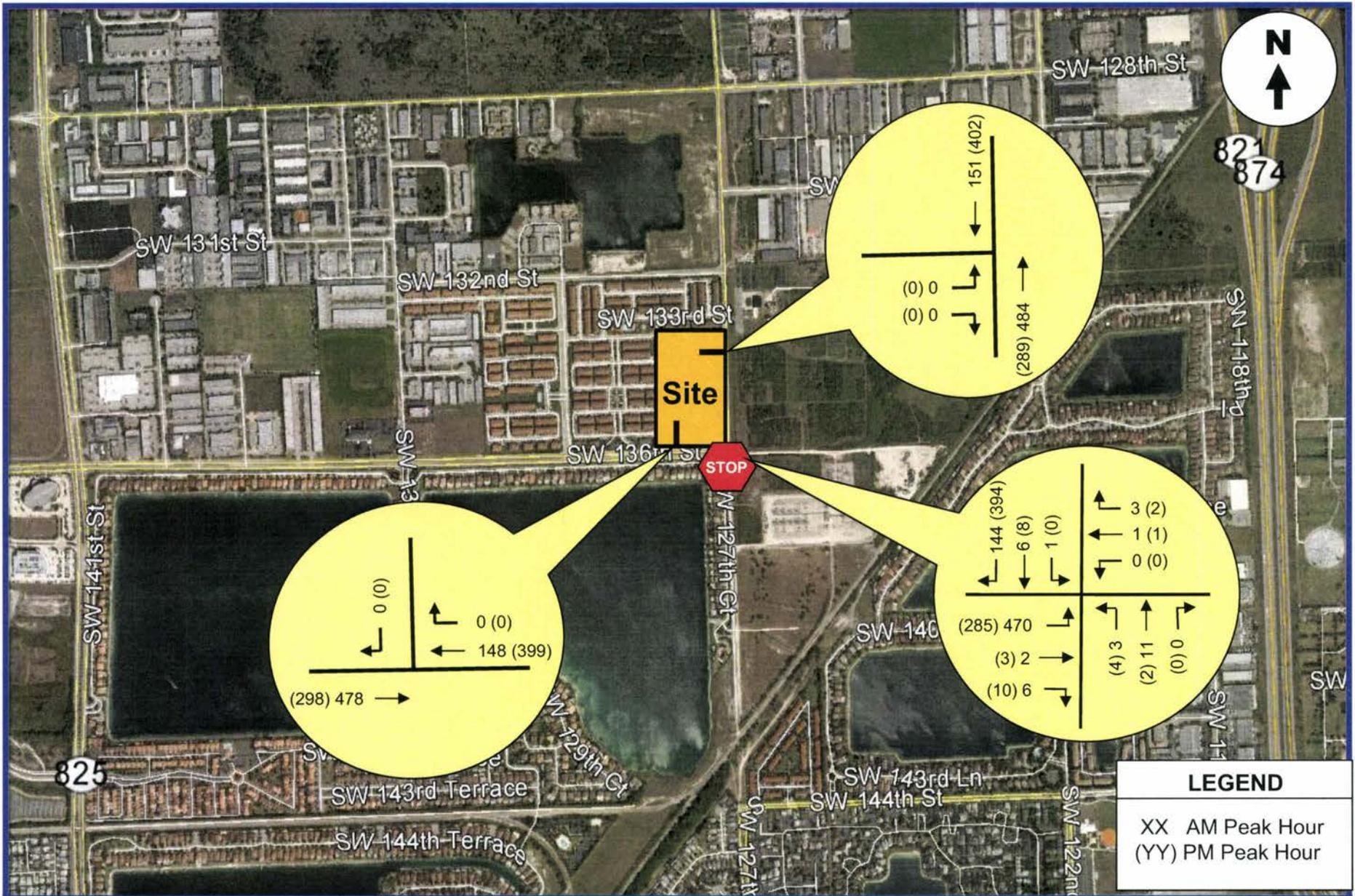
Intersection capacity/level of service (LOS) analyses were conducted for the study intersection and the project driveways. These analyses were undertaken following the capacity / level of service procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software. The results of these capacity analyses are summarized in Table 3 below. As indicated in Table 3, the study intersection is currently operating adequately and will continue to operate at an acceptable level of service in the year 2015 with the proposed project in place. Similarly, the project driveways will operate adequately. The SYNCHRO printouts of the intersection capacity analyses are contained in Appendix F.

Intersection	Existing (2013) Conditions		Future (2015) Conditions Without Project Traffic		Future (2015) Conditions With Project Traffic	
	AM	PM	AM	PM	AM	PM
	Peak Hour	Peak Hour	Peak Hour	Peak Hour	Peak Hour	Peak Hour
SW 136th St & SW 127th Ave *	C (21.9)	B (12.3)	C (22.1)	B (13.7)	D (30.8)	B (14.2)
SW 127th Ave & Project Driveway*					B (12.9)	B (14.2)
SW 136th St & Project Driveway *	--	--	--	--	A (9.0)	A (9.8)

Source: Highway Capacity Manual and SYNCHRO.

Legend: C (21.4) = LOS (Average Delay in Seconds / Vehicle)

* At stop-control intersections, the LOS for the critical movement is documented in this table.





SUMMARY & CONCLUSIONS

Three Lakes is a proposed residential community planned to be located in the northwest quadrant of the intersection at SW 136th Street and SW 127th Avenue in Miami-Dade County, Florida. Vehicular access to the subject site will be provided by a left-turn in / right-turn-in / right-turn-out only driveway to be located toward the west end of the property on SW 136th Street. In addition, an egress only driveway will be located on SW 127th Avenue toward the north end of the site. This driveway will allow both right-turn and left-turn out movements. The proposed project is anticipated to be built and occupied by Spring 2015.

The trip generation analysis indicates that the net new external vehicle trips anticipated to be generated by the proposed Three Lakes project consists of 1,578 daily vehicle trips, 121 AM peak hour vehicle trips (24 inbound and 97 outbound), and 150 PM peak hour vehicle trips (98 inbound and 52 outbound).

Intersection capacity/level of service (LOS) analyses were conducted for the study intersection and the project driveways. The results of these capacity analyses indicate that the study intersection is currently operating adequately and will continue to operate at an acceptable level of service in the year 2015 with the proposed project in place. Similarly, the project driveways will operate adequately.



APPENDIX A

Three Lakes Site Plan



APPENDIX B

Traffic Counts

TRIDENT Engineering

CLIENT: KBP Consulting
 JOB No: 2013-0001
 PROJECT: TMC
 COUNTY: MIAMI-DADE

62 Gables Boulevard
 Fort Lauderdale, FL 33326
 TEL: 954-815-3265

File Name: 20131211 TMC VD
 Site Code: -
 Count Date: 12/11/2013 (Wed.)
 Page No: 1 of 6

Groups Printed: Automobiles & Heavy Vehicles

Start Time	SW 127 Avenue Southbound				SW 136 Street Westbound				SW 127 Avenue Northbound				SW 136 Street Eastbound				Int Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:00 AM	0	0	1	28	0	0	0	4	0	0	6	0	1	118	0	2	160
07:15 AM	0	1	1	23	0	0	2	0	0	0	4	0	0	117	0	1	149
07:30 AM	0	0	2	25	0	0	0	0	0	1	3	0	0	99	0	0	130
07:45 AM	0	0	0	28	0	0	1	2	0	1	1	0	0	123	1	1	158
Total	0	1	4	104	0	0	3	6	0	2	14	0	1	457	1	4	597
08:00 AM	0	1	0	32	0	0	0	0	0	0	3	0	0	111	0	1	148
08:15 AM	0	0	3	35	0	0	0	0	0	1	4	0	1	122	1	2	169
08:30 AM	0	0	3	41	0	0	0	1	0	1	2	0	1	85	0	2	136
08:45 AM	0	1	2	40	0	0	1	1	0	0	6	0	0	98	0	4	153
Total	0	2	8	148	0	0	1	2	0	2	15	0	2	416	1	9	606
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	1	107	0	0	1	0	0	1	1	0	1	67	0	1	180
04:15 PM	0	0	3	88	0	0	1	0	0	0	2	0	0	48	0	1	143
04:30 PM	0	0	1	97	1	0	0	1	0	0	1	0	1	63	1	1	167
04:45 PM	0	0	2	87	0	0	0	0	0	0	0	0	0	76	0	4	169
Total	0	0	7	379	1	0	2	1	0	1	4	0	2	254	1	7	659
05:00 PM	0	0	3	94	0	0	0	1	0	2	0	0	0	63	2	1	166
05:15 PM	0	0	2	93	0	0	1	0	0	2	1	0	1	65	0	3	168
05:30 PM	0	0	6	78	0	0	1	0	0	3	2	0	0	61	0	2	153
05:45 PM	0	0	3	85	0	0	0	0	0	3	2	0	0	76	0	4	173
Total	0	0	14	350	0	0	2	1	0	10	5	0	1	265	2	10	660

TRIDENT Engineering

62 Gables Boulevard

Fort Lauderdale, FL 33326

TEL: 954-815-3265

IENT: KBP Consulting

JOB No: 2013-0001

PROJECT: TMC

COUNTY: MIAMI-DADE

File Name: 20131211 TMC VD

Site Code: -

Count Date: 12/11/2013 (Wed.)

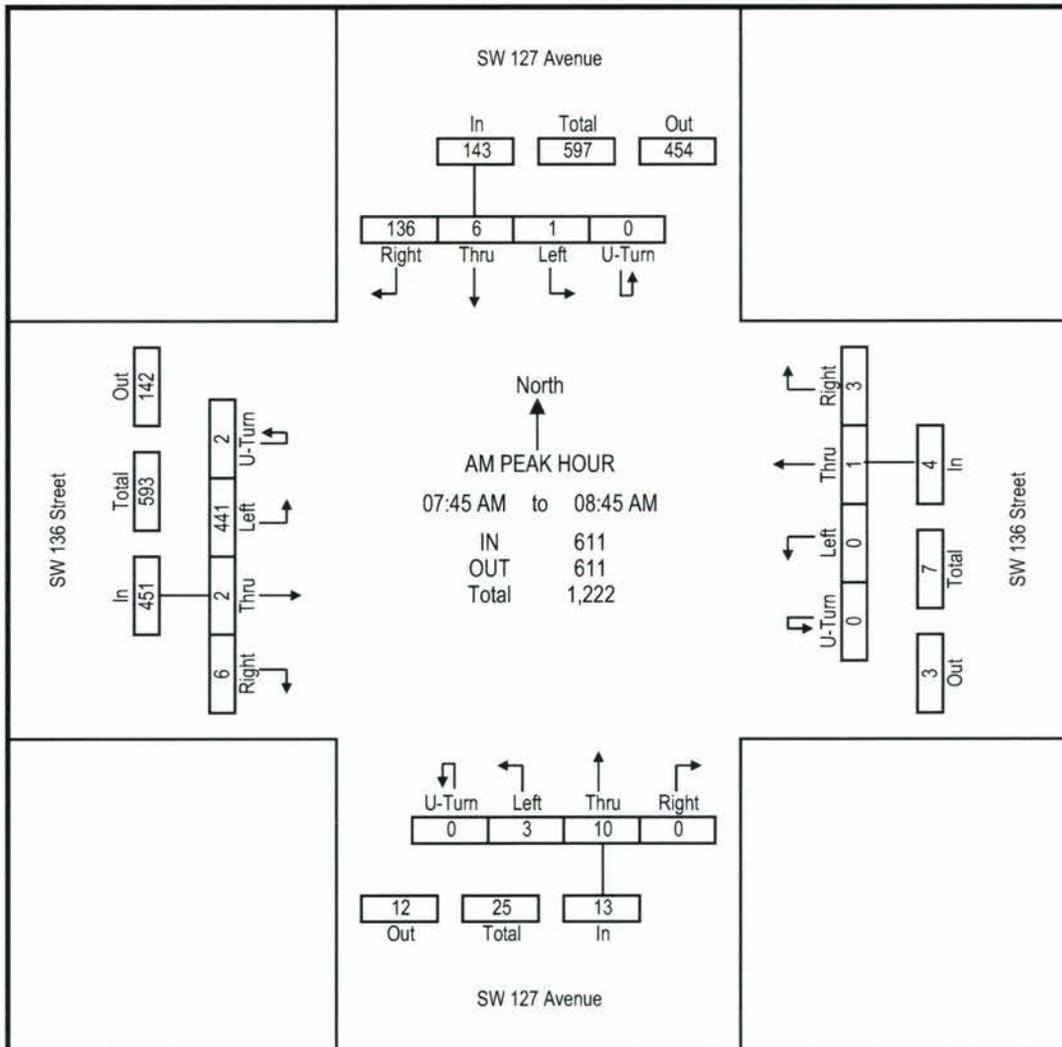
Page No: 2 of 6

Groups Printed: Automobiles & Heavy Vehicles

Start Time	SW 127 Avenue Southbound				SW 136 Street Westbound				SW 127 Avenue Northbound				SW 136 Street Eastbound				Int Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:45 AM	0	0	0	28	0	0	1	2	0	1	1	0	0	123	1	1	158
08:00 AM	0	1	0	32	0	0	0	0	0	0	3	0	0	111	0	1	148
08:15 AM	0	0	3	35	0	0	0	0	0	1	4	0	1	122	1	2	169
08:30 AM	0	0	3	41	0	0	0	1	0	1	2	0	1	85	0	2	136
Total	0	1	6	136	0	0	1	3	0	3	10	0	2	441	2	6	611
PHF	0.000	0.250	0.500	0.829	0.000	0.000	0.250	0.375	0.000	0.750	0.625	0.000	0.500	0.896	0.500	0.750	0.90
Heavy Veh %	0%	0%	14%	2%	0%	0%	0%	40%	0%	0%	9%	0%	0%	0%	33%	33%	2%
App Vol %	0%	1%	4%	95%	0%	0%	25%	75%	0%	23%	77%	0%	0%	98%	0%	1%	

Intersection Peak Hour Analysis From 06:00 AM to 09:00 AM

Peak Hour for Entire Intersection Begins at : 07:45 AM to 08:45 AM



TRIDENT Engineering

62 Gables Boulevard

Fort Lauderdale, FL 33326

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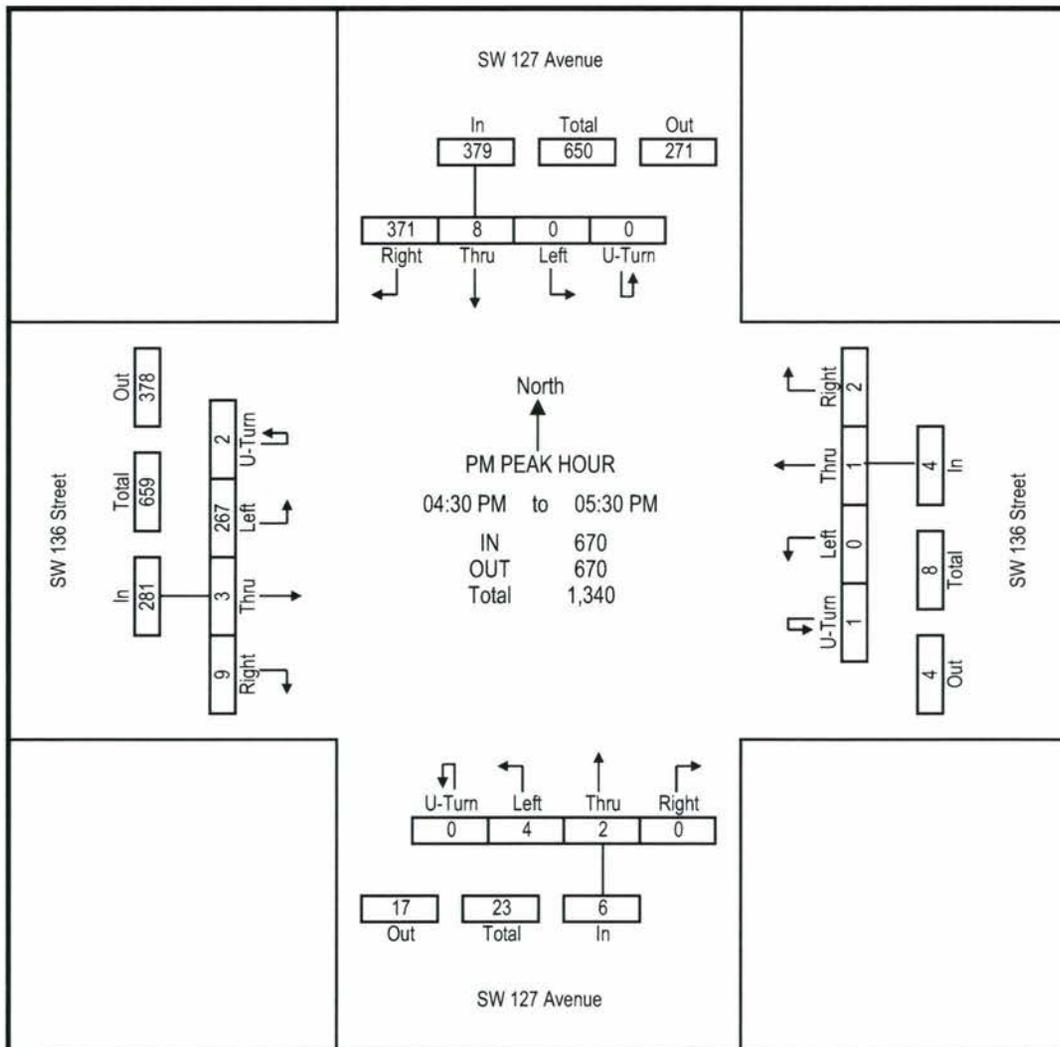
Page No: 3 of 6

Groups Printed: Automobiles & Heavy Vehicles

Start Time	SW 127 Avenue Southbound				SW 136 Street Westbound				SW 127 Avenue Northbound				SW 136 Street Eastbound				Int Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
04:30 PM	0	0	1	97	1	0	0	1	0	0	1	0	1	63	1	1	167
04:45 PM	0	0	2	87	0	0	0	0	0	0	0	0	0	76	0	4	169
05:00 PM	0	0	3	94	0	0	0	1	0	2	0	0	0	63	2	1	166
05:15 PM	0	0	2	93	0	0	1	0	0	2	1	0	1	65	0	3	168
Total	0	0	8	371	1	0	1	2	0	4	2	0	2	267	3	9	670
PHF	0.000	0.000	0.667	0.956	0.250	0.000	0.250	0.500	0.000	0.500	0.500	0.000	0.500	0.878	0.375	0.563	0.99
Heavy Veh %	0%	0%	11%	1%	0%	0%	50%	50%	0%	0%	33%	0%	0%	0%	25%	25%	2%
App Vol %	0%	0%	2%	98%	25%	0%	25%	50%	0%	67%	33%	0%	1%	95%	1%	3%	

Intersection Peak Hour Analysis From 04:00 PM to 08:00 PM

Peak Hour for Entire Intersection Begins at : 04:30 PM to 05:30 PM



TRIDENT Engineering

62 Gables Boulevard
Fort Lauderdale, FL 33326
TEL: 954-815-3265

CLIENT: KBP Consulting
JOB No: 2013-0001
PROJECT: TMC
COUNTY: MIAMI-DADE

File Name: 20131211 TMC VD
Site Code: -
Count Date: 12/11/2013 (Wed.)
Page No: 4 of 6

Groups Printed: Automobiles

Start Time	SW 127 Avenue Southbound				SW 136 Street Westbound				SW 127 Avenue Northbound				SW 136 Street Eastbound				Int Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:00 AM	0	0	0	27	0	0	0	2	0	0	5	0	1	118	0	0	153
07:15 AM	0	1	1	23	0	0	0	0	0	0	4	0	0	117	0	0	146
07:30 AM	0	0	1	25	0	0	0	0	0	1	3	0	0	99	0	0	129
07:45 AM	0	0	0	27	0	0	1	1	0	1	1	0	0	123	1	0	155
Total	0	1	2	102	0	0	1	3	0	2	13	0	1	457	1	0	583
08:00 AM	0	1	0	32	0	0	0	0	0	0	3	0	0	111	0	0	147
08:15 AM	0	0	2	34	0	0	0	0	0	1	3	0	1	122	0	1	164
08:30 AM	0	0	3	40	0	0	0	0	0	1	2	0	1	85	0	2	134
08:45 AM	0	1	2	39	0	0	0	1	0	0	6	0	0	98	0	2	149
Total	0	2	7	145	0	0	0	1	0	2	14	0	2	416	0	5	594
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	1	105	0	0	0	0	0	1	1	0	1	67	0	0	176
04:15 PM	0	0	3	88	0	0	1	0	0	0	2	0	0	48	0	0	142
04:30 PM	0	0	0	96	1	0	0	0	0	0	1	0	1	63	0	0	162
04:45 PM	0	0	2	86	0	0	0	0	0	0	0	0	0	76	0	4	168
Total	0	0	6	375	1	0	1	0	0	1	4	0	2	254	0	4	648
05:00 PM	0	0	3	94	0	0	0	0	0	2	0	0	0	63	2	0	164
05:15 PM	0	0	2	93	0	0	0	0	0	2	0	0	1	65	0	2	165
05:30 PM	0	0	6	78	0	0	1	0	0	3	2	0	0	61	0	2	153
05:45 PM	0	0	3	85	0	0	0	0	0	3	2	0	0	76	0	3	172
Total	0	0	14	350	0	0	1	0	0	10	4	0	1	265	2	7	654

TRIDENT Engineering

62 Gables Boulevard
Fort Lauderdale, FL 33326
TEL: 954-815-3265

File Name: 20131211 TMC VD
Site Code: -
Count Date: 12/11/2013 (Wed.)
Page No: 5 of 6

CLIENT: KBP Consulting
JOB No: 2013-0001
PROJECT: TMC
COUNTY: MIAMI-DADE

Groups Printed: Heavy Vehicles

Start Time	SW 127 Avenue Southbound				SW 136 Street Westbound				SW 127 Avenue Northbound				SW 136 Street Eastbound				Int Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:00 AM	0	0	1	1	0	0	0	2	0	0	1	0	0	0	0	2	7
07:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	3
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3
Total	0	0	2	2	0	0	2	3	0	0	1	0	0	0	0	4	14
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	5
08:30 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	4
Total	0	0	1	3	0	0	1	1	0	0	1	0	0	0	1	4	12
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	1	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	5
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	4	0	0	1	1	0	0	0	0	0	0	1	3	11
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
05:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	3	6



APPENDIX C

**FDOT Peak Season
Conversion Factor Report**

MOCF: 0.98

DATE	DATES	SF	PSCF
01	01/01/2012 - 01/07/2012	1.00	1.02
01	01/08/2012 - 01/14/2012	1.00	1.02
01	01/15/2012 - 01/21/2012	1.00	1.02
01	01/22/2012 - 01/28/2012	0.99	1.01
01	01/29/2012 - 02/04/2012	0.99	1.01
02	02/05/2012 - 02/11/2012	0.98	1.00
02	02/12/2012 - 02/18/2012	0.98	1.00
02	02/19/2012 - 02/25/2012	0.98	1.00
02	02/26/2012 - 03/03/2012	0.98	1.00
03	03/04/2012 - 03/10/2012	0.97	0.99
03	03/11/2012 - 03/17/2012	0.97	0.99
03	03/18/2012 - 03/24/2012	0.98	1.00
03	03/25/2012 - 03/31/2012	0.98	1.00
04	04/01/2012 - 04/07/2012	0.98	1.00
04	04/08/2012 - 04/14/2012	0.98	1.00
04	04/15/2012 - 04/21/2012	0.99	1.01
04	04/22/2012 - 04/28/2012	0.99	1.01
04	04/29/2012 - 05/05/2012	0.99	1.01
05	05/06/2012 - 05/12/2012	1.00	1.02
05	05/13/2012 - 05/19/2012	1.00	1.02
05	05/20/2012 - 05/26/2012	1.00	1.02
05	05/27/2012 - 06/02/2012	1.00	1.02
06	06/03/2012 - 06/09/2012	1.00	1.02
06	06/10/2012 - 06/16/2012	1.00	1.02
06	06/17/2012 - 06/23/2012	1.00	1.02
06	06/24/2012 - 06/30/2012	1.01	1.03
07	07/01/2012 - 07/07/2012	1.01	1.03
07	07/08/2012 - 07/14/2012	1.02	1.04
07	07/15/2012 - 07/21/2012	1.02	1.04
07	07/22/2012 - 07/28/2012	1.02	1.04
07	07/29/2012 - 08/04/2012	1.02	1.04
08	08/05/2012 - 08/11/2012	1.03	1.05
08	08/12/2012 - 08/18/2012	1.03	1.05
08	08/19/2012 - 08/25/2012	1.02	1.04
08	08/26/2012 - 09/01/2012	1.02	1.04
09	09/02/2012 - 09/08/2012	1.01	1.03
09	09/09/2012 - 09/15/2012	1.01	1.03
09	09/16/2012 - 09/22/2012	1.00	1.02
09	09/23/2012 - 09/29/2012	1.00	1.02
09	09/30/2012 - 10/06/2012	1.00	1.02
10	10/07/2012 - 10/13/2012	1.00	1.02
10	10/14/2012 - 10/20/2012	1.00	1.02
10	10/21/2012 - 10/27/2012	1.00	1.02
10	10/28/2012 - 11/03/2012	1.00	1.02
11	11/04/2012 - 11/10/2012	1.00	1.02
11	11/11/2012 - 11/17/2012	1.00	1.02
11	11/18/2012 - 11/24/2012	1.00	1.02
11	11/25/2012 - 12/01/2012	1.00	1.02
12	12/02/2012 - 12/08/2012	1.00	1.02
12	12/09/2012 - 12/15/2012	1.00	1.02
12	12/16/2012 - 12/22/2012	1.00	1.02
12	12/23/2012 - 12/29/2012	1.00	1.02
12	12/30/2012 - 12/31/2012	1.00	1.02

PK SEASON

08/2013 12:30:11

830UPD [1,0,0,1]

6_8701_PKSEASON.TXT



APPENDIX D

FDOT Historic Traffic Counts

DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
E 27500	W 28000	9.00	59.70	11.10
E 27500	W 28000	9.00	58.20	11.50
E 32500	W 33000	7.87	58.27	12.30
E 32000	W 32500	7.98	59.96	13.60

= COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; X = UNKNOWN
 STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES



APPENDIX E

Future Traffic Volumes Spreadsheets

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 136th Street and SW 127th Avenue
AM Peak Hour**

Description	SW 127th Ave Northbound			SW 127th Ave Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	3	10	0	1	6	136	443	2	6	0	1	3
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	3	10	0	1	6	139	452	2	6	0	1	3
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	3	11	0	1	6	144	470	2	6	0	1	3
New Project Trips	0	0	0	0	0	27	0	0	0	0	0	0
2015 Total Traffic	3	11	0	1	6	171	470	2	6	0	1	3

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 136th Street and SW 127th Avenue
PM Peak Hour**

Description	SW 127th Ave Northbound			SW 127th Ave Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	4	2	0	0	8	371	269	3	9	0	1	2
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	4	2	0	0	8	378	274	3	9	0	1	2
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	4	2	0	0	8	394	285	3	10	0	1	2
New Project Trips	0	0	0	0	0	48	0	0	0	0	0	0
2015 Total Traffic	4	2	0	0	8	442	285	3	10	0	1	2

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 136th Street & Three Lakes Entrance
AM Peak Hour**

Description	Northbound			Three Lakes Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	0	0	0	0	0	0	0	450	0	0	139	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	0	0	459	0	0	142	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	0	0	0	0	0	0	0	478	0	0	148	0
New Project Trips	0	0	0	0	0	51	14	0	0	0	17	10
2015 Total Traffic	0	0	0	0	0	51	14	478	0	0	165	10

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 136th Street and Three Lakes Entrance
PM Peak Hour**

Description	Northbound			Three Lakes Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	0	0	0	0	0	0	0	281	0	0	376	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	0	0	287	0	0	384	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	0	0	0	0	0	0	0	298	0	0	399	0
New Project Trips	0	0	0	0	0	27	59	0	0	0	9	39
2014 Total Traffic	0	0	0	0	0	27	59	298	0	0	408	39

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 127th Avenue & Three Lakes Entrance
AM Peak Hour**

Description	Northbound			Three Lakes Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	0	456	0	0	142	0	0	0	0	0	0	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	465	0	0	145	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	0	484	0	0	151	0	0	0	0	0	0	0
New Project Trips	0	0	0	0	10	0	29	0	17	0	0	0
2015 Total Traffic	0	484	0	0	161	0	29	0	17	0	0	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 127th Avenue and Three Lakes Entrance
PM Peak Hour**

Description	Northbound			Three Lakes Southbound			SW 136th Street Eastbound			SW 136th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/11/2013)	0	272	0	0	379	0	0	0	0	0	0	0
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	277	0	0	387	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
2015 Background Traffic	0	289	0	0	402	0	0	0	0	0	0	0
New Project Trips	0	0	0	0	39	0	16	0	9	0	0	0
2014 Total Traffic	0	289	0	0	441	0	16	0	9	0	0	0



APPENDIX F
SYNCHRO Output

Existing (2013) SYNCHRO Output

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	443	2	6	0	1	3	3	10	0	1	6	136
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	492	2	7	0	1	3	3	11	0	1	7	151

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	494	7	4	14	159
Volume Left (vph)	492	0	0	3	1
Volume Right (vph)	0	7	3	0	151
Hadj (s)	0.53	-0.67	-0.42	0.08	-0.54
Departure Headway (s)	5.5	4.3	4.7	5.6	4.8
Degree Utilization, x	0.75	0.01	0.01	0.02	0.21
Capacity (veh/h)	644	819	710	573	684
Control Delay (s)	22.1	6.1	7.7	8.8	9.1
Approach Delay (s)	21.9		7.7	8.8	9.1
Approach LOS	C		A	A	A

Intersection Summary

Delay	18.5
Level of Service	C
Intersection Capacity Utilization	46.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	269	3	9	0	1	2	4	2	0	0	8	371
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	272	3	9	0	1	2	4	2	0	0	8	375

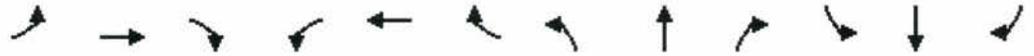
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	275	9	3	6	383
Volume Left (vph)	272	0	0	4	0
Volume Right (vph)	0	9	2	0	375
Hadj (s)	0.53	-0.67	-0.37	0.17	-0.55
Departure Headway (s)	5.9	4.7	5.0	5.4	4.2
Degree Utilization, x	0.45	0.01	0.00	0.01	0.45
Capacity (veh/h)	582	722	648	611	813
Control Delay (s)	12.5	6.6	8.0	8.4	10.6
Approach Delay (s)	12.3		8.0	8.4	10.6
Approach LOS	B		A	A	B

Intersection Summary				
Delay			11.3	
Level of Service			B	
Intersection Capacity Utilization		51.8%		ICU Level of Service A
Analysis Period (min)			15	

Future (2015) Background SYNCHRO Output

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	470	2	6	0	1	3	3	11	0	1	6	144
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	495	2	6	0	1	3	3	12	0	1	6	152

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	497	6	4	15	159
Volume Left (vph)	495	0	0	3	1
Volume Right (vph)	0	6	3	0	152
Hadj (s)	0.53	-0.67	-0.42	0.08	-0.54
Departure Headway (s)	5.5	4.3	4.7	5.6	4.8
Degree Utilization, x	0.76	0.01	0.01	0.02	0.21
Capacity (veh/h)	643	819	709	577	683
Control Delay (s)	22.4	6.1	7.7	8.8	9.1
Approach Delay (s)	22.1		7.7	8.8	9.1
Approach LOS	C		A	A	A

Intersection Summary				
Delay			18.7	
Level of Service			C	
Intersection Capacity Utilization		48.8%		ICU Level of Service A
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	285	3	10	0	1	2	4	2	0	0	8	394
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	300	3	11	0	1	2	4	2	0	0	8	415

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	303	11	3	6	423
Volume Left (vph)	300	0	0	4	0
Volume Right (vph)	0	11	2	0	415
Hadj (s)	0.53	-0.67	-0.37	0.17	-0.55
Departure Headway (s)	6.0	4.8	5.2	5.6	4.3
Degree Utilization, x	0.51	0.01	0.00	0.01	0.51
Capacity (veh/h)	572	705	620	587	795
Control Delay (s)	13.9	6.7	8.2	8.6	11.7
Approach Delay (s)	13.7		8.2	8.6	11.7
Approach LOS	B		A	A	B

Intersection Summary

Delay		12.5			
Level of Service			B		
Intersection Capacity Utilization		54.1%		ICU Level of Service	A
Analysis Period (min)		15			

Future (2015) Total SYNCHRO Output

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	520	2	6	0	1	3	3	11	0	1	6	171
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	547	2	6	0	1	3	3	12	0	1	6	180

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	549	6	4	15	187
Volume Left (vph)	547	0	0	3	1
Volume Right (vph)	0	6	3	0	180
Hadj (s)	0.53	-0.67	-0.42	0.08	-0.54
Departure Headway (s)	5.6	4.4	4.9	5.9	5.0
Degree Utilization, x	0.85	0.01	0.01	0.02	0.26
Capacity (veh/h)	636	804	675	570	673
Control Delay (s)	31.1	6.2	8.0	9.1	9.7
Approach Delay (s)	30.8		8.0	9.1	9.7
Approach LOS	D		A	A	A

Intersection Summary				
Delay			25.1	
Level of Service			D	
Intersection Capacity Utilization		53.3%		ICU Level of Service A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
 7: SW 136th St & Project Driveway

5/12/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑			↘
Volume (veh/h)	14	478	165	10	0	51
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	503	174	11	0	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	184				712	92
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	184				712	92
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	94
cM capacity (veh/h)	1403				368	954

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	518	116	68	54
Volume Left	15	0	0	0
Volume Right	0	0	11	54
cSH	1403	1700	1700	954
Volume to Capacity	0.01	0.07	0.04	0.06
Queue Length 95th (ft)	1	0	0	4
Control Delay (s)	0.3	0.0	0.0	9.0
Lane LOS	A			A
Approach Delay (s)	0.3	0.0		9.0
Approach LOS				A

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		37.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 13: SW 127th Ave & Secondary Drive

5/12/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	29	17	0	484	161	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	18	0	526	175	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	701	175	175			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	701	175	175			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	98	100			
cM capacity (veh/h)	408	874	1401			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	50	526	175			
Volume Left	32	0	0			
Volume Right	18	0	0			
cSH	508	1700	1700			
Volume to Capacity	0.10	0.31	0.10			
Queue Length 95th (ft)	8	0	0			
Control Delay (s)	12.9	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	12.9	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization		35.5%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: SW 127th Ave & SW 136th St

5/12/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	285	3	10	0	1	2	4	2	0	0	8	442
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	300	3	11	0	1	2	4	2	0	0	8	465

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total (vph)	303	11	3	6	474
Volume Left (vph)	300	0	0	4	0
Volume Right (vph)	0	11	2	0	465
Hadj (s)	0.53	-0.67	-0.37	0.17	-0.56
Departure Headway (s)	6.2	5.0	5.3	5.7	4.3
Degree Utilization, x	0.52	0.01	0.00	0.01	0.57
Capacity (veh/h)	561	686	597	576	796
Control Delay (s)	14.4	6.8	8.3	8.7	13.0
Approach Delay (s)	14.2		8.3	8.7	13.0
Approach LOS	B		A	A	B

Intersection Summary

Delay	13.4
Level of Service	B
Intersection Capacity Utilization	57.1%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 7: SW 136th St & Project Driveway

5/12/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↗			↘
Volume (veh/h)	59	298	408	39	0	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	62	314	429	41	0	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	471				731	235
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471				731	235
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				100	96
cM capacity (veh/h)	1102				341	773

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	167	209	286	184	28
Volume Left	62	0	0	0	0
Volume Right	0	0	0	41	28
cSH	1102	1700	1700	1700	773
Volume to Capacity	0.06	0.12	0.17	0.11	0.04
Queue Length 95th (ft)	4	0	0	0	3
Control Delay (s)	3.5	0.0	0.0	0.0	9.8
Lane LOS	A				A
Approach Delay (s)	1.5		0.0		9.8
Approach LOS					A

Intersection Summary					
Average Delay			1.0		
Intersection Capacity Utilization		29.1%		ICU Level of Service	A
Analysis Period (min)		15			

HCM Unsignalized Intersection Capacity Analysis
 12: SW 127th Ave & Secondary Driveway

5/12/2014



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	16	9	0	289	441	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	10	0	314	479	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	793	479	479			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	793	479	479			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	100			
cM capacity (veh/h)	360	590	1083			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	27	314	479
Volume Left	17	0	0
Volume Right	10	0	0
cSH	419	1700	1700
Volume to Capacity	0.06	0.18	0.28
Queue Length 95th (ft)	5	0	0
Control Delay (s)	14.2	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.2	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		33.2%	ICU Level of Service A
Analysis Period (min)		15	

KBP CONSULTING, INC.

Concurrence

June 30, 2014

Mr. Jeff Evans, AICP
Development Associate
The Richman Group
477 S. Rosemary Avenue, Suite 301
West Palm Beach, Florida 33401

RECEIVED
By the Clerk for the record.

JUL 17 2014

Item 1
Exhibit 1-B
Meeting PCC ZONING
(13-083)

Re: **Three Lakes – Miami-Dade County, Florida
Trip Generation Analysis**

Dear Jeff:

Three Lakes is a proposed residential community planned to be located in the northwest quadrant of the intersection at SW 136th Street and SW 127th Avenue in Miami-Dade County, Florida. The subject site is currently vacant and there is no formal vehicular access to the site.

The subject site has been previously approved for one and one-half (1.5) acres of commercial / retail development and 104 residential townhome units. With an estimated Floor-Area-Ratio (FAR) of 0.30 for the commercial / retail element, this would yield approximately 19,600 square of retail space. The currently proposed development for this site is a rental residential community with 240 dwelling units. The purpose of this technical memorandum is to document the trip generation characteristics of each development scenario.

Trip Generation Analysis

The trip generation for this project was determined utilizing the trip generation rates and equations contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (9th Edition)*. Based upon this information, the weekday and peak hour trip generation rates / equations for approved and proposed development scenarios are as follows:

Shopping Center – ITE Land Use #820

- Weekday Trip Generation Rate: $\text{Ln}(T) = 0.65 \text{Ln}(X) + 5.83$
where T = number of trips and X = 1,000 square feet gross leasable area
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $\text{Ln}(T) = 0.61 \text{Ln}(X) + 2.24$ (62% in / 38% out)
 - PM Peak Hour: $\text{Ln}(T) = 0.67 \text{Ln}(X) + 3.31$ (48% in / 52% out)

Residential Condominium / Townhouse – ITE Land Use #230

- Weekday Trip Generation Rate: $\text{Ln}(T) = 0.87 \text{Ln}(X) + 2.46$
where T = number of trips and X = number of dwelling units
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $\text{Ln}(T) = 0.80 \text{Ln}(X) + 0.26$ (17% in / 83% out)
 - PM Peak Hour: $\text{Ln}(T) = 0.82 \text{Ln}(X) + 0.32$ (67% in / 33% out)

8400 North University Drive, Suite 309, Tamarac, Florida 33321

Tel: (954) 560-7103 Fax: (954) 582-0989

KBP CONSULTING, INC.

Apartment – ITE Land Use #220

- Weekday Trip Generation Rate: $T = 6.06 (X) + 123.56$
where $T =$ number of trips and $X =$ number of dwelling units
- Peak Hour Trip Generation Rates:
 - AM Peak Hour: $T = 0.49 (X) + 3.73$ (20% in / 80% out)
 - PM Peak Hour: $T = 0.55 (X) + 17.65$ (65% in / 35% out)

The resulting trip generation for the development scenarios is presented in Table 1 below.

Table 1 Trip Generation Summary Three Lakes - Miami-Dade County, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Previously Approved</i>								
Retail ¹	19,600 SF	2,355	36	22	58	96	105	201
Townhomes ²	104 D.U.	666	9	44	53	42	20	62
Total		3,021	45	66	111	138	125	263
<i>Currently Proposed</i>								
Apartment ³	240 D.U.	1,578	24	97	121	98	52	150
Total		1,578	24	97	121	98	52	150
Difference (Proposed - Approved)		(1,443)	(21)	31	10	(40)	(73)	(113)

Compiled by: KBP Consulting, Inc. (June 2014).

Source: ITE Trip Generation Manual (9th Edition).

As indicated by the foregoing trip generation analysis, the proposed development scenario is projected to result in 1,443 fewer daily vehicle trips, 10 additional AM peak hour vehicle trips (21 fewer inbound trips and 31 additional outbound trips) and 113 fewer PM peak hour vehicle trips (40 fewer inbound trips and 73 fewer outbound trips).

Conclusions

Based upon the foregoing trip generation analysis, the proposed Three Lakes development scenario is expected to result in an insignificant increase in AM peak hour vehicle trips and a significant reduction in daily and PM peak hour vehicle trips when compared with the previously approved development scenario for this site. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

KBP CONSULTING, INC.



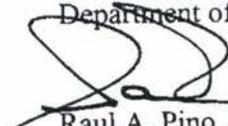
Karl B. Peterson, P.E.
Florida Registration Number 49897
Engineering Business Number 29939

Memorandum



Date: February 28, 2014

To: Eric Silva, Assistant Director
Department of Regulatory and Economic Resources

From: 
Raul A. Pino, PLS, Chief
Platting and Traffic Review Section
Department of Regulatory and Economic Resources

Subject: Z2013000083
Name: The Richman Group of Fl, Inc.
Location: Lying North of SW 136 Street and West of SW 127 Avenue
Section 14 Township 55 South Range 39 East

The Department of Regulatory and Economic Resources Platting and Traffic Review Section has reviewed the subject application and objects for the following reasons:

This Department objects to the request to permit 372 parking spaces where 399 spaces are required. Fewer spaces may result in parking within public right-of-way where it is not permitted.

The entrance feature design needs to be reworked. Please contact Mohammed Mansuri at 305-375-2707 for details.

Applicant must provide a secondary exit onto SW 127th Avenue.

Interior sidewalks that are adjacent to asphalt drives must have a minimum width of 6 feet.

This land requires platting in accordance with Chapter 28 of the Miami-Dade County Code. Any right-of-way dedications and/or improvements required will be accomplished thru the recording of a plat.

Additional improvements may be required at time of permitting.

This application **does** meet the traffic concurrency criteria for an Initial Development Order. It will generate **149 PM** daily peak hour vehicle trips. The traffic distribution of these trips to the adjacent roadways reveals that the addition of these new trips **does not** exceed the acceptable level of service of the following roadways:

Sta.#		LOS present	LOS w/project
9784	SW 127 Ave. s/o SW 104 St	D	D
9814	SW 137 Ave. s/o SW 120 St.	C	C
9816	SW 137 Ave/ s/o SW 136 St.	C	C
9760	SW 120 St. w/o SW 122 Ave.	D	D

The request herein, constitutes an Initial Development Order only, and one or more traffic concurrency determinations will subsequently be required before development will be permitted.