

Via email: (Jeff@douglaspd.com)

Ref: 5644.02

TECHNICAL MEMORANDUM

To: Jeff Douglas

From: Matthew West, AICP

Subject: The Cascades at Grand Landings PUD – Rezoning Traffic Impact Analysis (RTIA)
Flagler County, FL

Date: April 13, 2022

INTRODUCTION

LTG, Inc. (LTG) has been retained by Byrndog PCP, LLC (the CLIENT) to conduct traffic engineering and transportation planning services on behalf of The Cascades at Grand Landings PUD (the PROJECT). The CLIENT intends to annex the property in the City of Palm Coast (the CITY). As a result of this annexation, the CITY will provide a CITY zoning which permits a maximum of 463 single family dwelling units. Based on the existing Flagler County (the COUNTY) PUD, a maximum of 416 single family dwelling units is permitted. Based on the information provided by the CLIENT, the proposed CITY zoning will limit the site to no more than 463 single family dwelling units. The proposed RTIA is accompanied by a related comprehensive plan amendment which is addressed in a separate technical memorandum. The subject property is located north of Seminole Woods Boulevard, East of US 1, and South of Citation Boulevard in Flagler County, Florida.

The methodology and procedures used in this analysis are consistent with the guidelines for the COUNTY, the CITY, the Florida Department of Economic Opportunity (FDEO), and the Florida Department of Transportation (FDOT).

TRIP GENERATION FOR THE EXISTING ZONING VS PROPOSED REZONING DESIGNATIONS

The trip generation was determined using the Institute of Transportation Engineers (ITE) document, Trip Generation Manual, 11th Edition. The total daily, AM peak hour, and PM peak hour trips for the existing zoning and proposed rezoning designations are shown in Tables 1 and 2, respectively.

First, the existing COUNTY PUD designation was examined. Based on the existing COUNTY PUD, a maximum of 416 single family dwelling units is permitted. Single-Family Detached Housing (ITE code 210) was utilized as the most accurate use category for the existing zoning. As indicated in Table 1, the existing zoning would generate 3,745 daily, 273 AM peak hour, and 379 PM peak hour trips.

Next, the proposed CITY zoning was examined. Based on information provided by the CLIENT, the proposed CITY zoning will limit the site to no more than 463 single family dwelling units. Single-Family Detached Housing (ITE code 210) was utilized as the most accurate use category for the proposed rezoning. As indicated in Table 2, the proposed rezoning would generate 4,133 daily, 300 AM peak hour, and 420 PM peak hour trips.

**Table 1
 Existing Zoning Total Trip Generation
 The Cascades at Grand Landings PUD – RTIA**

Time Period	Land Use	ITE LUC	Trip Rate Equation	Quantity (X)		Percent Entering	Percent Exiting	Trips Entering	Trips Exiting	Total Trips
Daily	Single-Family Detached Housing	210	$\text{Ln}(T) = 0.92 \text{Ln}(X) + 2.68$	416	DU	50%	50%	1,872	1,873	3,745
AM Peak Hour			$\text{Ln}(T) = 0.91 \text{Ln}(X) + 0.12$			26%	74%	71	202	273
PM Peak Hour			$\text{Ln}(T) = 0.94 \text{Ln}(X) + 0.27$			63%	37%	239	140	379

**Table 2
 Proposed Rezoning Total Trip Generation
 The Cascades at Grand Landings PUD – RTIA**

Time Period	Land Use	ITE LUC	Trip Rate Equation	Quantity (X)		Percent Entering	Percent Exiting	Trips Entering	Trips Exiting	Total Trips
Daily	Single-Family Detached Housing	210	$\text{Ln}(T) = 0.92 \text{Ln}(X) + 2.68$	463	DU	50%	50%	2,066	2,067	4,133
AM Peak Hour			$\text{Ln}(T) = 0.91 \text{Ln}(X) + 0.12$			26%	74%	78	222	300
PM Peak Hour			$\text{Ln}(T) = 0.94 \text{Ln}(X) + 0.27$			63%	37%	264	156	420

TRIP GENERATION DIFFERENCE BETWEEN EXISTING & PROPOSED ZONING DESIGNATIONS

The trip difference between the existing COUNTY PUD designation and the proposed CITY designation is determined by subtracting trips generated by the existing designation from the trips generated by the proposed designation. As indicated in Table 3, this results in a potential trip increase of 388 daily, 27 AM peak hour, and 41 PM peak hour trips.

**Table 3
 Difference in Trip Generation
 The Cascades at Grand Landings PUD – RTIA**

	Daily	AM Peak Hour	PM Peak Hour
Existing County Zoning	3,745	273	379
Proposed City Zoning	4,133	300	420
Increase	388	27	41

CONCLUSION

The study was conducted to evaluate the impact the proposed rezoning would have on area roadways. Based on this analysis, there would be a net increase in potential trip generation. Concurrency and any required mitigation to support a proposed development plan will be assessed in greater detail during the final development permitting process.

I affirm, by affixing my signature below, that the findings contained herein are, to my knowledge, accurate and truthful and were developed using current procedures standard to the practice of professional planning.

Name : Matthew West

Signature: _____

Date: April 13, 2022