TECHNICAL MEMORANDUM

To: Jeff Wilkerson, P.E. (jwilkerson@gaskinslecraw.com)

From: Erika Becker, AICP (erika.becker@nv5.com)

Date: March 4, 2025

Re: Trip Generation Comparison Memorandum
Proposed Alcovy Road Residential Development

NV5 Engineers and Consultants, Inc. completed a trip generation assessment of the proposed Alcovy Road residential development to be located at 2053 Alcovy Road SE in Dacula, Georgia. The development will consist of 54 single-family attached units (townhomes) and will utilize two (2) proposed full access driveways; one (1) on Alcovy Road SE and one (1) on W Downing Creek Road SW. See Figure 1 for the site location.

Figure 1. Site Location Map

Site Trip Generation

Project trip generation was calculated using rates and equations provided in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021. As a result, the residential development is expected to generate 362 daily trips, 221 AM peak hour trips (7 inbound and 15 outbound) and 28 PM peak hour trips (16 inbound and 12 outbound).

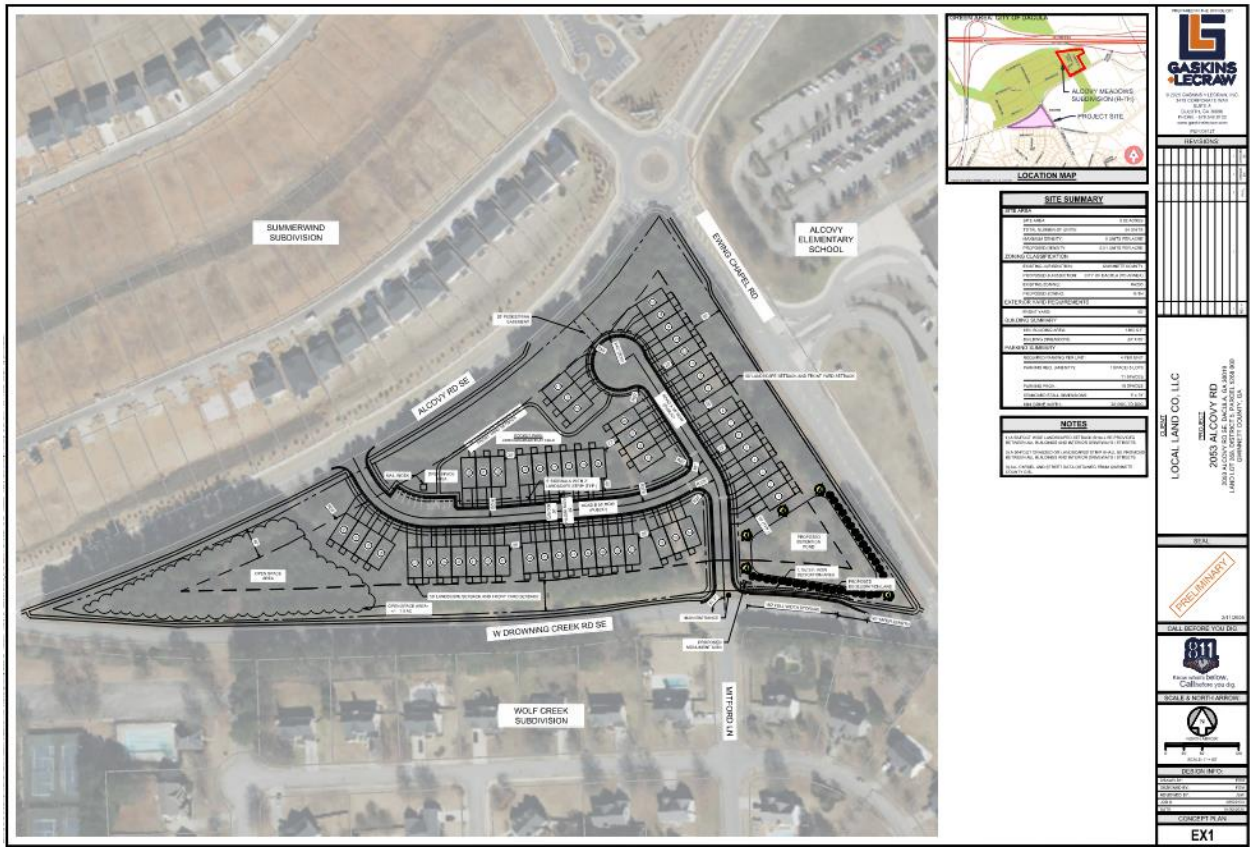
Land Use Code	Variable	Trip Type	Daily	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
215	54-Units	Vehicle	362	7	15	22	16	12	28

Trip Generation Comparison

For comparison, we also calculated the trips that would be generated if the site were developed as a 35,000 square foot Strip Retail Plaza. As shown in the table below, a shopping plaza would generate 1,344 more daily trips, 44 more AM peak hour trips, and 162 more PM peak hour trips.

Land Use Code	Variable	Trip Type	Daily	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
215	54-Units	Vehicle	362	7	15	22	16	12	28
822	35,000 Square Feet	Personal Vehicle	1,706	40	26	66	95	95	190
Pass-by Trips (30%)				*0*	*0*	*0*	*29*	*28*	*57*
Total with Pass-by Reduction			*1,706*	*40*	*26*	*66*	*66*	*67*	*133*
Difference with Pass-by Reduction			+1,344	+33	+11	+44	+50	+55	+105
Difference without Pass-by Reduction			+1,344	+33	+11	+44	+79	+83	+162

Concept Site Plan



ITE Trip Generation

Single-Family Attached Housing (215)

Based upon methodology from ITE's Trip Generation, 11th Edition (2021)

Project Land Use	Project Density	Project Trips			ITE Code	Variable	Equation Used[1]	In/Out Distribution		Average Rate
		Total	Inbound	Outbound						
Single-Family Attached Housing	54 DU				215	Dwelling Units				
Daily		**362**	181	181			T = 7.62 * X - 50.48	50%	50%	7.20
AM Peak Hour (One Hour from 7-9)		**22**	7	15			T = 0.52 * X - 5.7	31%	69%	0.48
PM Peak Hour (One Hour from 4-6)		**28**	16	12			T = 0.6 * X - 3.93	57%	43%	0.57
Reductions for Pass-By Trips										
Daily		**0**	0	0						
AM Peak Hour		**0**	0	0						
PM Peak Hour		**0**	0	0						
TOTAL PROJECT TRIPS										
Daily		**362**	181	181						
AM Peak Hour		**22**	7	15						
PM Peak Hour		**28**	16	12						

Note:

[1] Where: T = Trips; X = Density by Variable

Strip Retail Plaza (<40K) (822)

Based upon methodology from ITE's Trip Generation, 11th Edition (2021)

Project Land Use	Project Density	Project Trips			ITE Code	Variable	Equation Used[1]	In/Out Distribution		Average Rate
		Total	Inbound	Outbound						
Strip Retail Plaza (<40K)	35,000 SF				822	1,000 SF				
Daily		**1,706**	853	853			T = 42.2 * X/1000 + 229.68	50%	50%	54.45
AM Peak Hour		**66**	40	26			LN(T) = 0.66 * LN(X/1000) + 1.84	60%	40%	2.36
PM Peak Hour		**190**	95	95			LN(T) = 0.71 * LN(X/1000) + 2.72	50%	50%	6.59
Reductions for Pass-By Trips										
Daily		**0**	0	0						
AM Peak Hour		**0**	0	0						
PM Peak Hour	30%	**57**	29	28						
TOTAL PROJECT TRIPS										
Daily		**1,706**	853	853						
AM Peak Hour		**66**	40	26						
PM Peak Hour		**133**	66	67						

Note:

[1] Where: T = Trips; X = Density by Variable; % = Pass-By Percentage