

## INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) performed a trip generation memo study for a proposed residential development along White Road and McDowell Road in Jackson Township, Ohio. Proposed access to the site is to include one full-access site driveway onto McDowell Road and one full-access site driveway onto White Road. The conceptual site plan is attached

## TRIP GENERATION

To calculate trips generated by the proposed site, data was referenced from the Institute of Transportation Engineers (ITE) manual titled Trip Generation, Eleventh Edition. Trip generation rates for the ITE Land Use Code (LUC) corresponding to the proposed use are shown in **Table 1**.

**Table 1: ITE Trip Generation Data - Average Rate per Sq. Ft. GFA**

ITE Land Use	Unit	Vehicle Type	Weekday		
			Daily	AM Peak Hour	Pm Peak Hour
Senior Adult Housing – Single Family (251)	Units	All	$Ln(T) = 0.85Ln(X) + 2.47$ 50% in/50% out	$Ln(T) = 0.76Ln(X) + 0.16$ 33% in/67% out	$Ln(T) = 0.78Ln(X) + 0.20$ 61% in/39% out

T – Site-generated trips      X – Number of Units

For the purpose of this study, all site-generated trips are expected to be “Primary Trips” when traveling to and from proposed residential buildings. Primary trips are trips to the proposed residential site which would not normally travel on the study roadways and are considered new trips within the study area.

Per these assumptions, site-generated traffic projections are presented in **Table 2**.

**Table 2: Proposed Site Generated Traffic Projections**

ITE Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Senior Adult Housing – Single Family (251)	40	272	6	13	19	13	9	22
Senior Adult Housing – Single Family (251)	34	237	6	11	17	12	7	19
<i>Total</i>	74	509	12	24	36	25	16	41

# Senior Adult Housing - Single-Family (251)

**Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

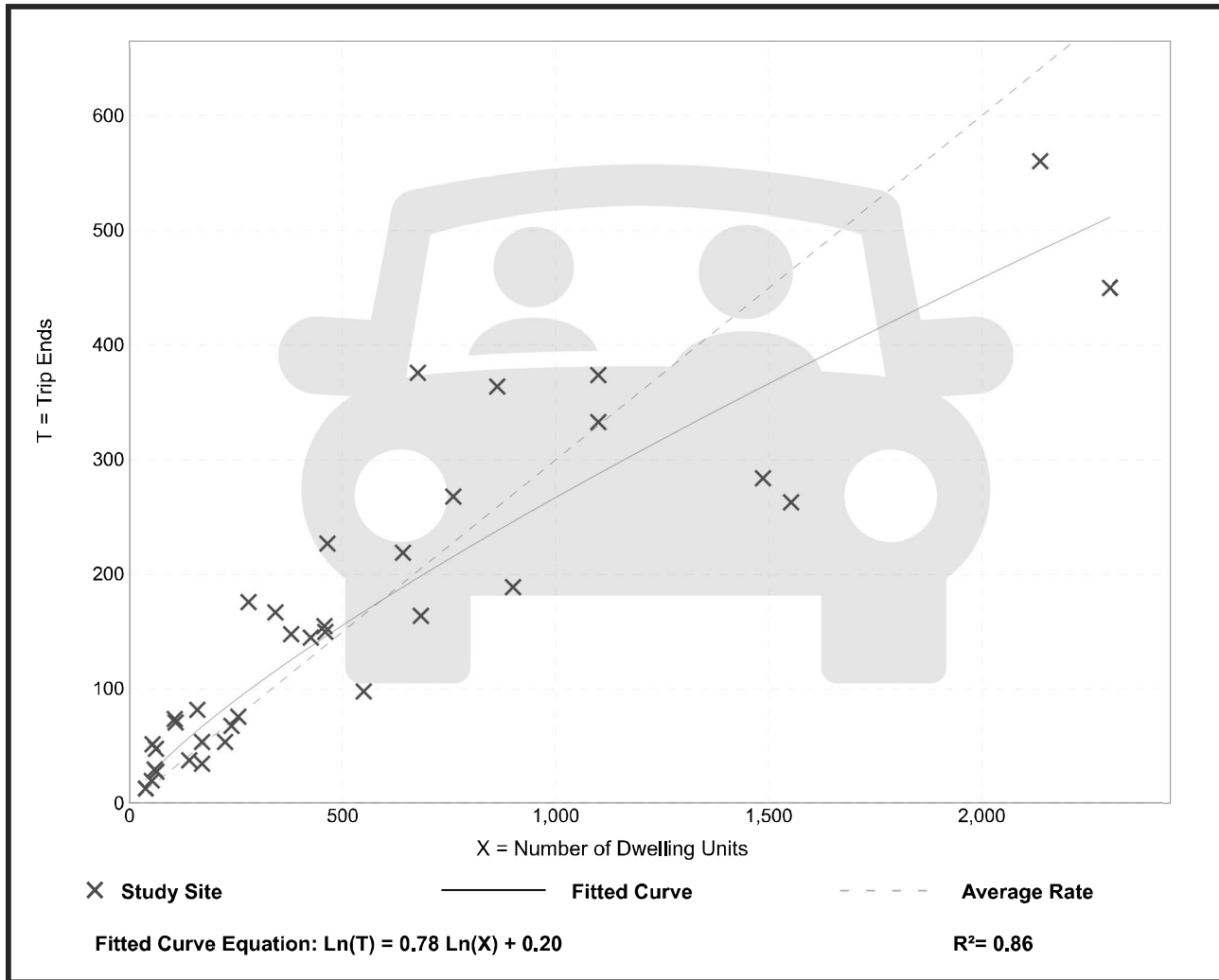
**Setting/Location: General Urban/Suburban**

Number of Studies: 35  
 Avg. Num. of Dwelling Units: 556  
 Directional Distribution: 61% entering, 39% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.30	0.17 - 0.95	0.12

## Data Plot and Equation



# Senior Adult Housing - Single-Family (251)

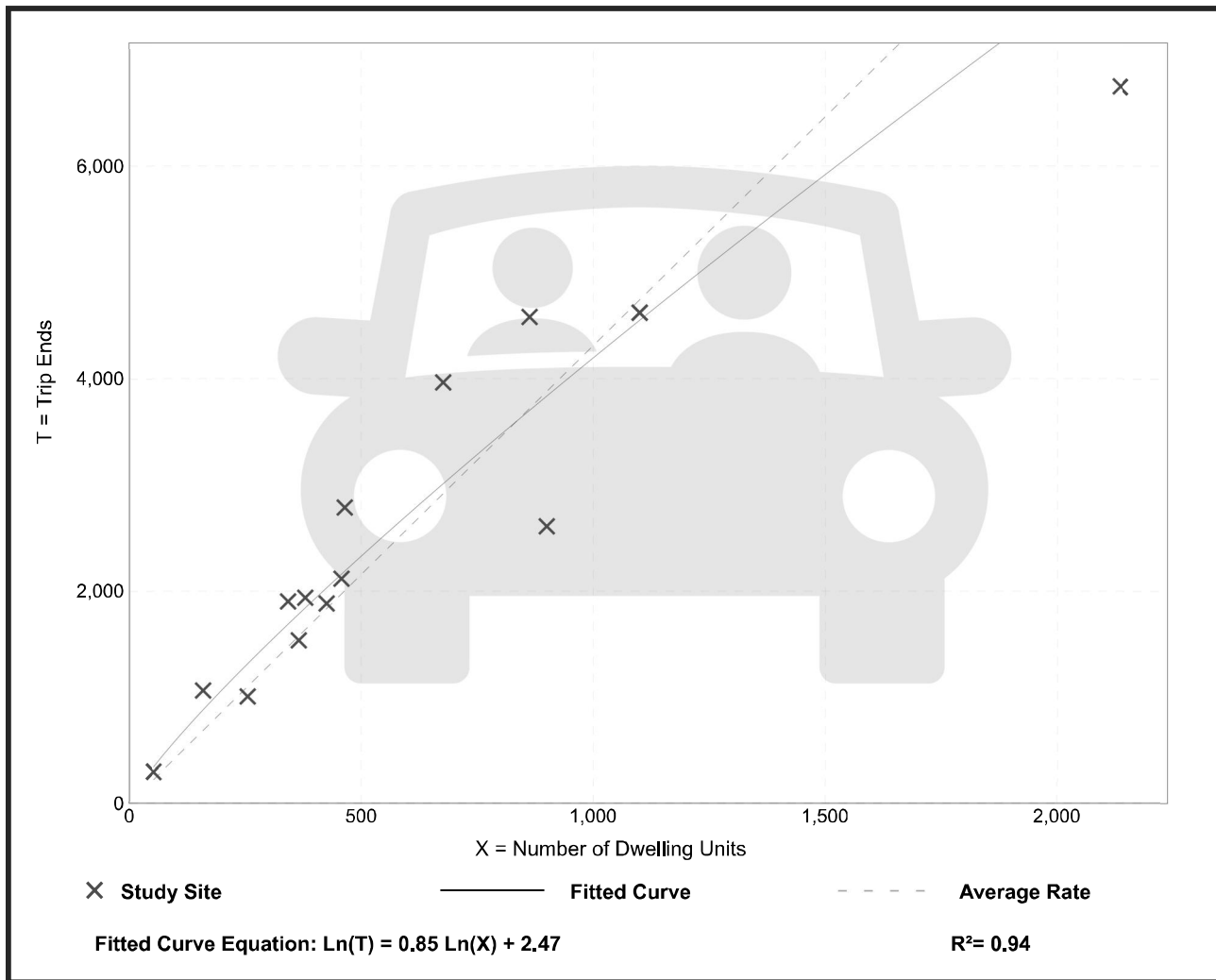
**Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 15  
Avg. Num. of Dwelling Units: 646  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.31	2.90 - 6.66	1.07

## Data Plot and Equation



# Senior Adult Housing - Single-Family (251)

**Vehicle Trip Ends vs: Dwelling Units**  
**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: 34  
 Avg. Num. of Dwelling Units: 557  
 Directional Distribution: 33% entering, 67% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.24	0.13 - 0.84	0.10

## Data Plot and Equation

