

memo

Earth Design Engineering, LLC

To: Ben Song, Community Development Director
 From: Nick Griffiths, P.E.
 CC: Abid Khutliwala
 Date: November 2, 2022
 Re: Trip Generation

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 RZ-22-0010
 PLANNING & ZONING

This trip generation memorandum is based on information provided by the ITETripGen Web-based App, Trip Generation Manual, 11 th Edition. The ITE Code 937 (Coffee/Donut shop with drive thru) was used to obtain the data for the number of trips based on a 1,000 square foot building in a General Urban/Suburban location. The proposed building is 1,610 sq.ft., therefore, the trip rate was multiplied by 1.61 to generate the trip data for the site. Attached are the AM peak hour, PM peak hour, and the Weekday Vehicle Trip Generation graphs. A pass-by trip reduction percentage of 50% was applied to the values obtained from the ITETripGen Web-based App to calculate the Total Net New Project Trips. See the Tables below for the AM & PM peak hour values and the Daily Trip breakdown.

Project Trip Generation Summary								
Project Trip Generation			AM Peak Hours			PM Peak Hours		
Description	ITE Code	Size (sq.ft.)	Total	In (50%)	Out (50%)	Total	In (50%)	Out (50%)
Coffee/Donut shop with drive thru	937	1,610	163	81.5	81.5	70	35	35
50% Reduction for Pass-by Trips*			81.5	40.75	40.75	35	17.5	17.5
Total Net New Project Trips			82	41	41	36	18	18

Project Trip Generation			Daily Trip Counts				
Description	ITE Code	Size (sq.ft.)	Total	In (50%)	Out (50%)	In*	Out*
Coffee/Donut shop with drive thru	937	1,610	859	429	430	215	215

*50% reduction for pass-by trips is based on the pass-by reduction

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

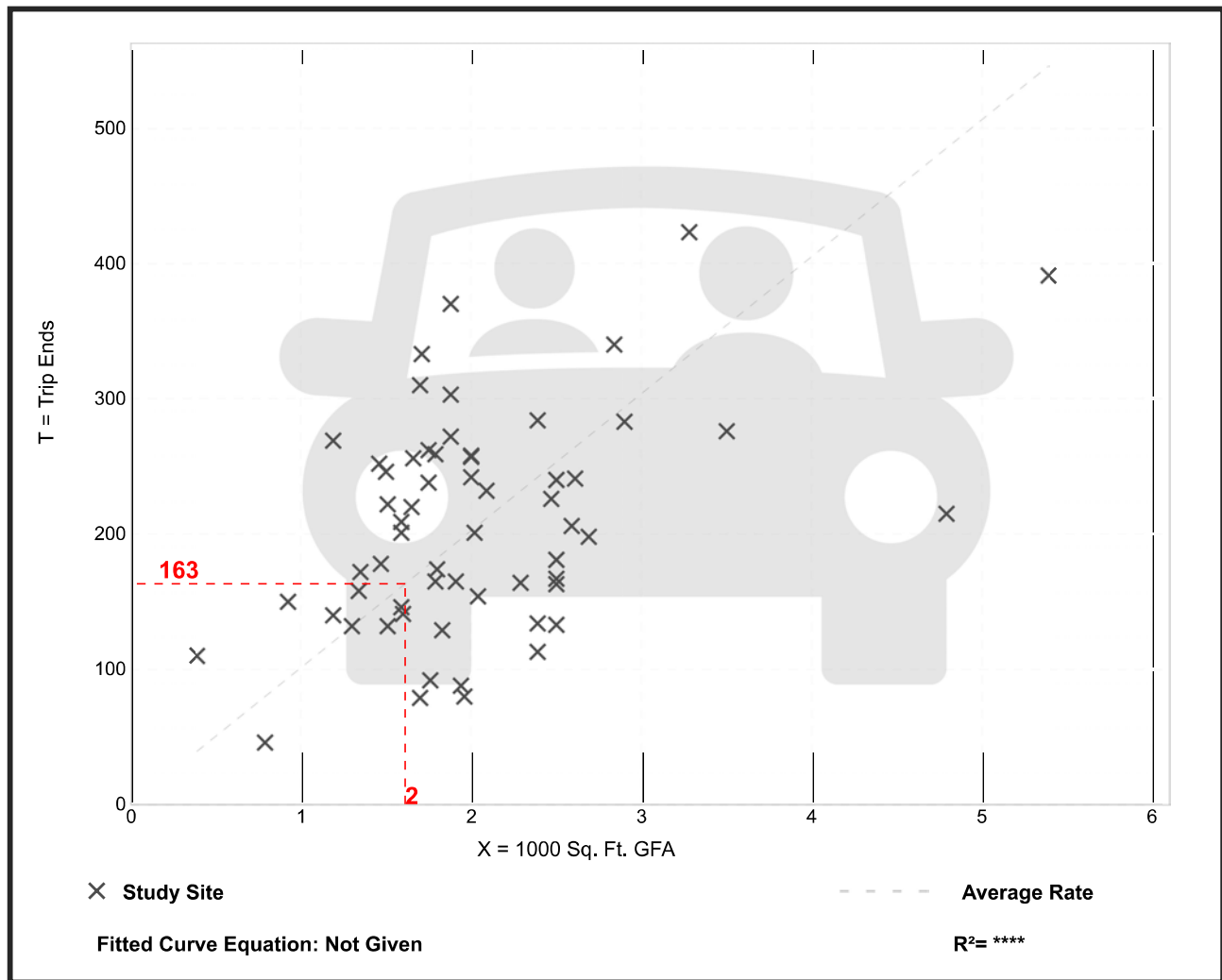
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 62
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
101.27	40.82 - 282.05	41.74

Data Plot and Equation



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

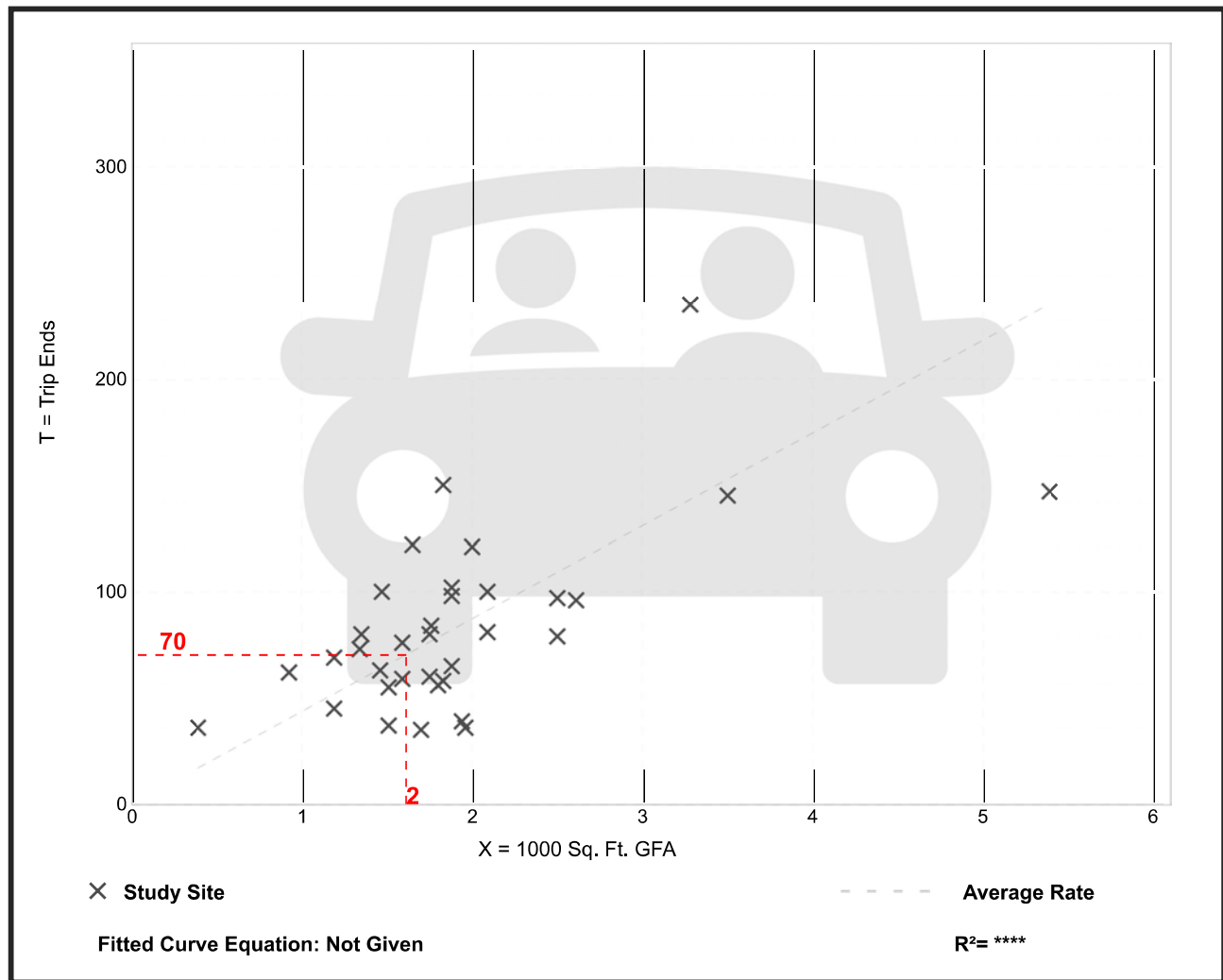
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 34
 Avg. 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.65	18.37 - 92.31	16.74

Data Plot and Equation



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

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
533.57	309.41 - 869.00	243.65

Data Plot and Equation

