

# HEATH & ASSOCIATES

Transportation Planning & Engineering

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## TRIP GENERATION ASSESSMENT

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McDonalds Puyallup  
Puyallup, WA

November 1, 2024

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# MCDONALDS PUYALLUP

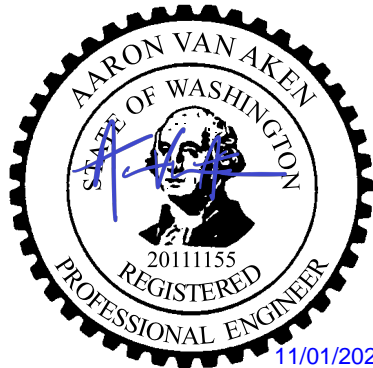
## TRIP GENERATION MEMORANDUM

Prepared for:

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# MCDONALDS PUYALLUP TRIP GENERATION ASSESSMENT

November 1, 2024

To: City of Puyallup

Subject: McDonald's Puyallup – Trip Generation Assessment

## INTRODUCTION

Heath & Associates has been retained to provide the City of Puyallup with an updated trip generation assessment for the East Town Crossing Development (TIA – 9/21/2022). The commercial Lot 2 has been revised from a larger multi-tenant commercial building to a 3,671 square foot McDonald's with drive-through. This report will analyze the resulting change in trip generation.

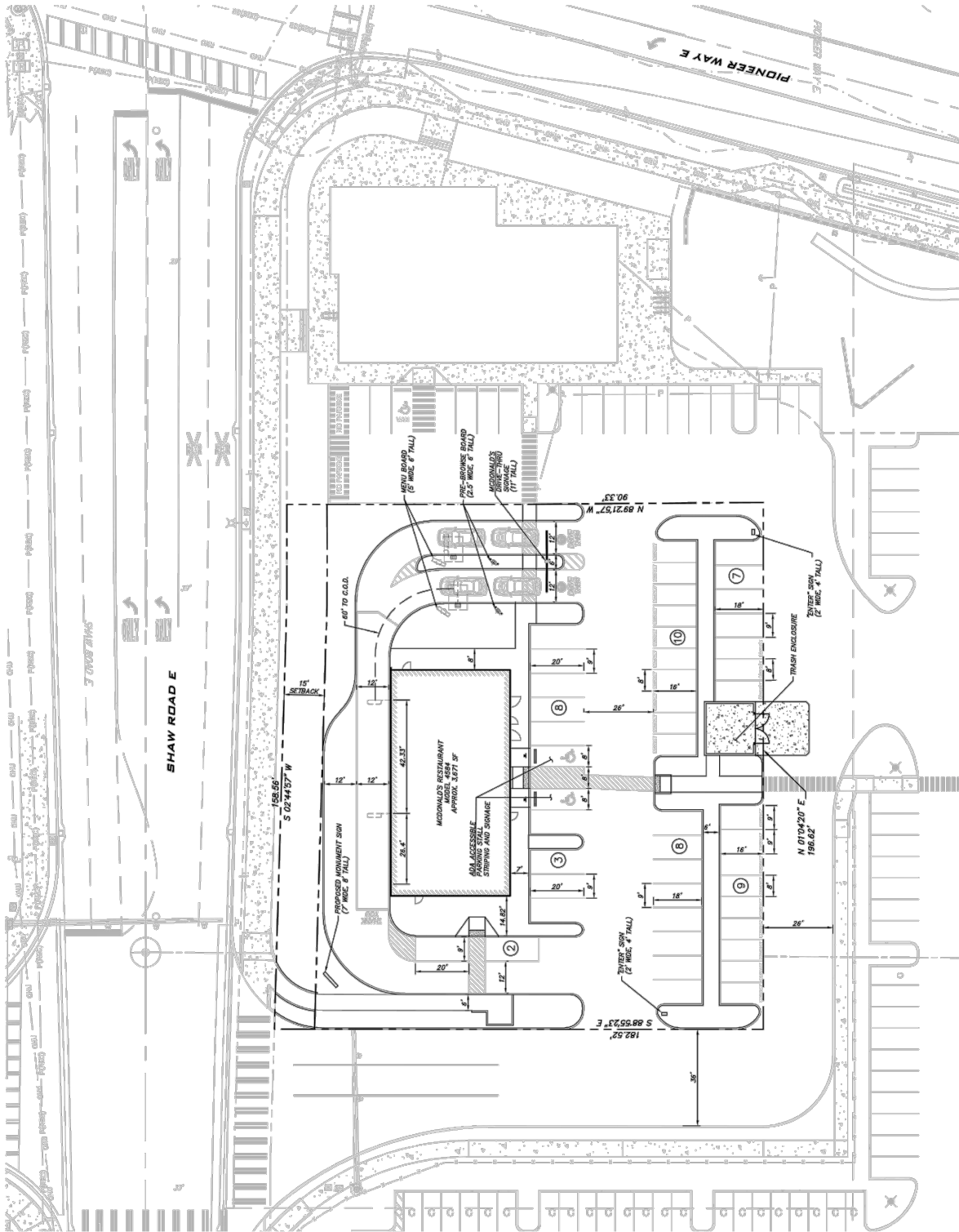
## PROJECT DESCRIPTION

East Town Crossing is a proposed mixed-use development located within the City of Puyallup. The subject site is situated on 10.93-acres within multiple tax parcels (042026-4053; -4054; -1066; -4021; -1030; -1029; & -1026). The project now has plans to construct a McDonalds on Lot 2 which was originally considered as general retail space.

### New Project Proposal:

- Lot 1 (Commercial) – Unchanged
- Lot 3 (Residential) – Unchanged
- **Lot 2 – 6,700 sq. ft. Retail Space to 3,671 sq. ft. Fast-Food (McDonalds)**

**Figure 1** on the following page displays a conceptual site plan for the project McDonald's.





## TRIP GENERATION

Trip generation estimates were derived from the Institute of Transportation Engineers (ITE) publication, *Trip Generation Manual, 11th Edition* and from the previously approved TIA. The following Land Use Codes (LUC) were used.

### **Original TIA**

- Residential Use: LUC 220 – Multifamily Housing (Low-Rise)
- Retail/Commercial Use: LUC 822 – Strip Retail Plaza

### **Proposed Change**

- McDonald's: LUC 934 – Fast-Food Restaurant with Drive-Through

## Trip Adjustments

*Internal Capture:* Given the mixed-use nature of the development, internal capture trips, such as a resident from the apartments walking over to the McDonald's, is expected. Internal capture values are consistent with the previously approved TIA which considered a 2 percent AM and 14 percent PM trip reduction were similarly applied.

*Pass-By Trips:* Pass-by trips are vehicles already traveling along the roadway who decide to make an intermediary stop before continuing to their primary destination. Pass-by rates for each respective use are shown below.

- Retail/Commercial – Daily & AM: 26% PM: 34%
- Fast-Food (McDonalds) – Daily: 52.5% AM: 50% PM: 55%

**Table 1** on the following page highlights the trip generation based on the change of use, provided in the appendix is a use-specific trip generation breakdown.

**Table 1: Primary Project Trip Generation Comparison**

Scenario	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
		In	Out	Total	In	Out	Total
Original ETC TIA (Sept. 2022)	1,547	28	63	91	71	49	120
ETC with McDonald's	2,048	62	98	160	83	59	142
<b>Net New Primary</b>	<b>501</b>	<b>34</b>	<b>35</b>	<b>69</b>	<b>12</b>	<b>10</b>	<b>22</b>

In total, and after accounting for trip rate adjustments (e.g., internal capture and pass-by) the change of use on Lot 2 is estimated to generate 22 net new PM peak hour trips.

## TRAFFIC IMPACT FEE ASSESSMENT

Based on the City of Puyallup's Traffic Impact Fees (TIF), impact fees are assessed at \$4,500 per new PM peak hour trip. Preliminary traffic impact fees calculations are provided below.

### ***Original East Town Crossing Estimated TIF:***

- 120.0 PM Peak Hour Trips X \$4,500 Per Trip = -\$540,000.00

### ***New Estimated TIF:***

- 141.9 New PM Peak Hour Trips X \$4,500 Per Trip = \$638,550.00
  - McDonald's proportional share of total = 47.3 trips = \$212,850

The change in TIF between the original and new proposal is around \$98,550.00. However, Traffic Impact Fees are assessed at the time of building permit issuance and are subject to change based on actual tenant occupancies, final building sizes, current rates, etc. The initial TIF estimates are based on the PM peak hour trips that were approved in the original TIA and may not reflect the latest site conditions.



## CONCLUSION

The East Town Crossing development has modified commercial Lot 2 from general retail space to a 3,671 drive-through McDonald's. This report evaluates the resulting trip generation differences.

Compared to the *East Town Crossing Traffic Impact Analysis* (Sept. 2022), the total primary PM peak hour trips went from 120.0 to 141.9, resulting in an increase in Traffic Impact Fees (TIF) of \$98,550.00 and totaling \$638,550.00.

McDonald's represents around 33% of the primary site traffic, or 47.3 trips yielding \$212,850 of the total TIF.

Please feel free to contact me should you require further information.  
Aaron Van Aken, PTOE



# MCDONALDS PUYALLUP TRIP GENERATION ASSESSMENT

## *APPENDIX*



# Fast-Food Restaurant with Drive-Through Window (934)

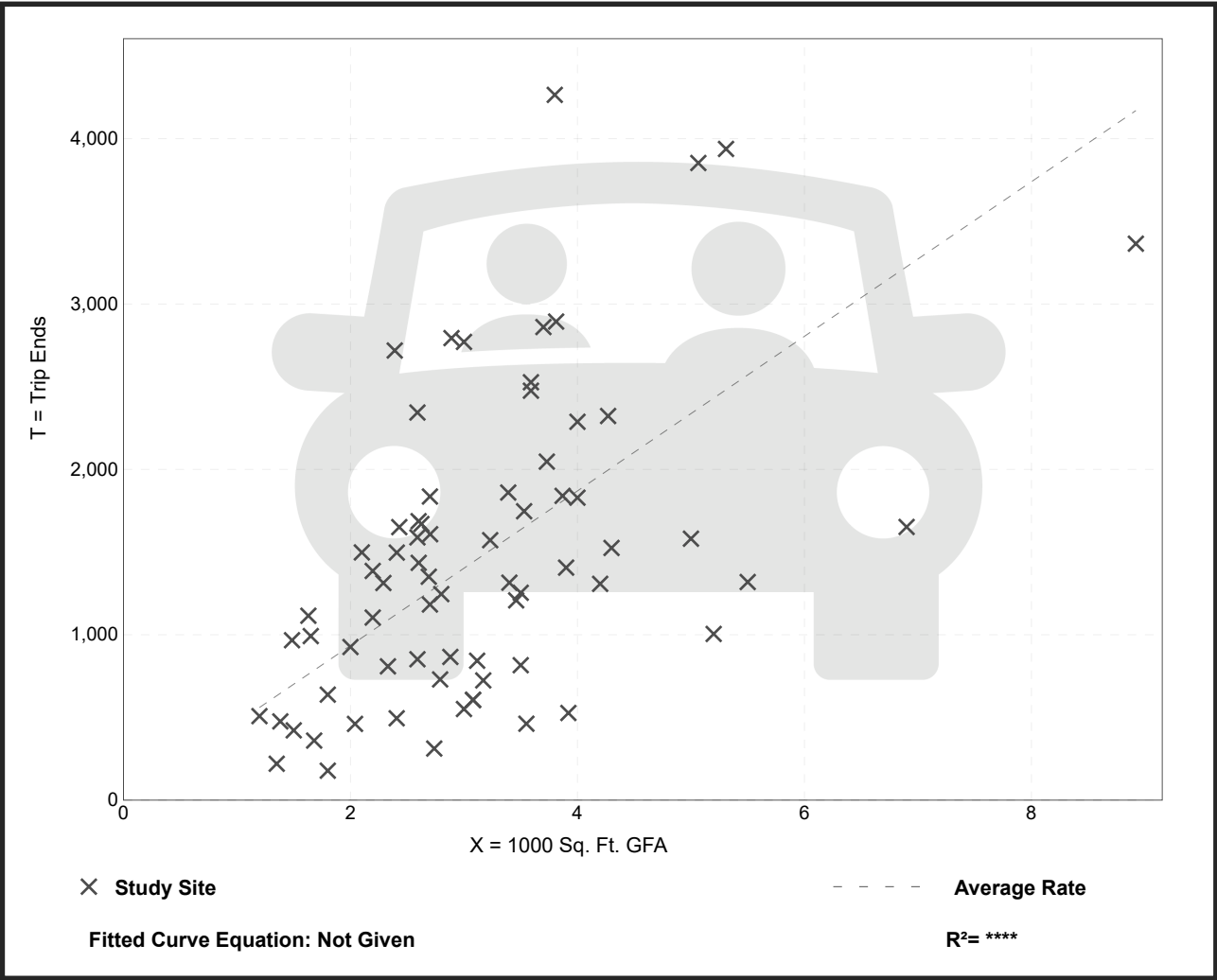
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 71  
Avg. 1000 Sq. Ft. GFA: 3  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
467.48	98.89 - 1137.66	238.62

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 96

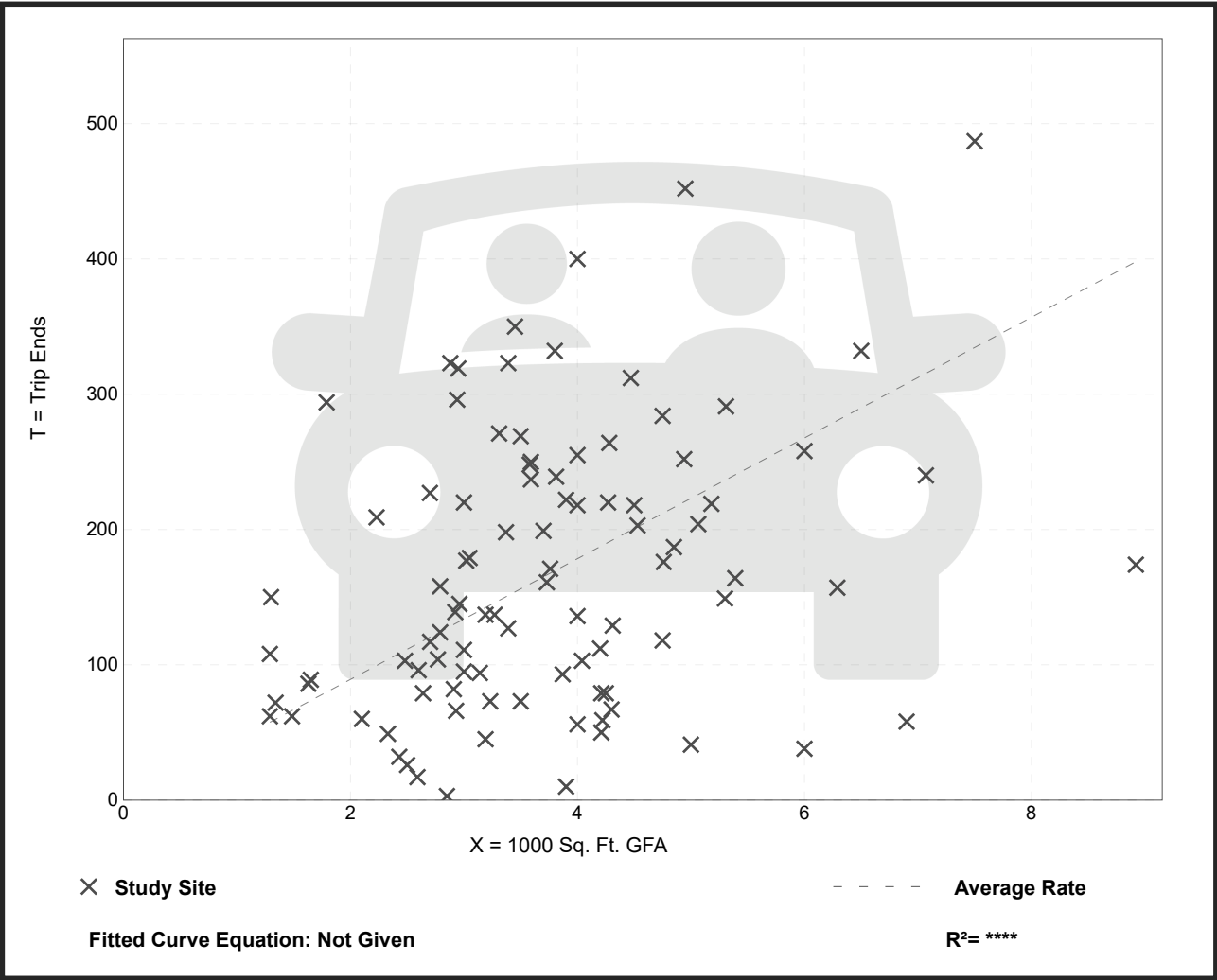
Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 190

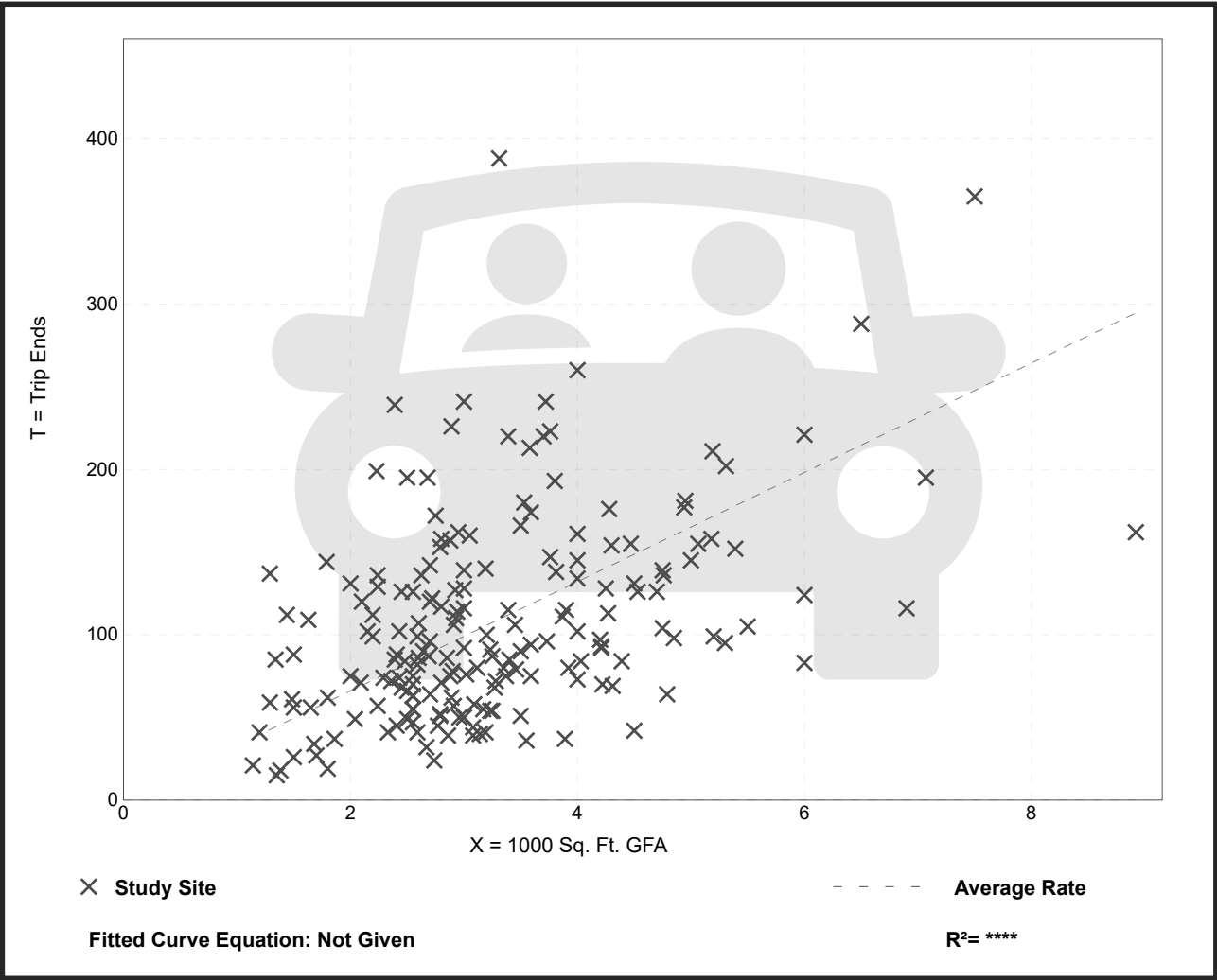
Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

## Data Plot and Equation





## East Town Crossing - Trip Generation Summary

Average Weekday Trips																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	9.43	50%	50%	14.1	14.1	28.3	0%	0	0%	0.0	14.1	14.1	28.3
	Multi-Family (Low-Rise)	#220	Dwelling Units	193	6.74	50%	50%	650.4	650.4	1300.8	8%	104.1	0%	0.0	598.4	598.4	1196.8
Proposed	Strip Retail Plaza	#822	1000 Sq. Ft.	3.502	54.45	50%	50%	95.3	95.3	190.7	8%	15.3	26%	45.6	64.9	64.9	129.8
	FF With DT	#934	1000 Sq. Ft.	3.671	467.48	50%	50%	858.1	858.1	1716.1	8%	137.3	53%	828.9	375.0	375.0	749.9
Net New Primary Trips															1024.1	1024.1	2048.2
874.5																	
Weekday AM Peak Hour																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.7	26%	74%	0.5	1.6	2.1	0%	0	0%	0.0	0.5	1.6	2.1
	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.4	24%	76%	18.5	58.7	77.2	2%	1.5	0%	0.0	18.2	57.5	75.7
Proposed	Strip Retail Plaza	#822	1000 Sq. Ft.	3.502	2.36	60%	40%	5.0	3.3	8.3	2%	0.2	26%	2.1	3.6	2.4	6.0
	FF With DT	#934	1000 Sq. Ft.	3.671	44.61	51%	49%	83.5	80.2	163.8	2%	3.3	50%	80.2	40.9	39.3	80.2
Net New Primary Trips															62.1	97.7	159.8
82.3																	
Weekday PM Peak Hour																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.94	63%	37%	1.8	1.0	2.8	0%	0	0%	0.0	1.8	1.0	2.8
	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.51	63%	37%	62.0	36.4	98.4	14%	13.8	0%	0.0	53.3	31.3	84.6
Proposed	Strip Retail Plaza	#822	1000 Sq. Ft.	3.502	6.59	50%	50%	11.5	11.5	23.1	14%	3.2	34%	6.7	6.5	6.5	13.1
	FF With DT	#934	1000 Sq. Ft.	3.671	33.03	52%	48%	63.1	58.2	121.3	14%	17.0	55%	57.4	24.4	22.5	46.9
Net New Primary Trips															82.5	59.4	141.9
64.1																	

Sources:

Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition, (2021).  
 Institute of Transportation Engineers, *Trip Generation Handbook*, 3rd Edition, (2017).  
 Internal Capture Rates based on NCHRP 8-51 Internal Capture (ADT rates are the average of the AM/PM)

