



October 10, 2024

Mr. Brad Chaffee, President  
Camford Property Group, Inc.  
37 East Central Street  
Franklin, MA 02038

**Re: Traffic Impact Assessment  
Proposed Senior Village  
Mixed-Use Development  
Panther Way  
Franklin, Massachusetts**

Dear Mr. Chaffee:

Tetra Tech has reviewed the potential traffic impacts associated with the proposed Senior Village mixed-use residential and commercial development to be located at 1 Panther Way in Franklin, Massachusetts. The project site currently supports an existing 39,062 square foot warehouse facility (100 Panther Way), accessed by a commercial driveway located on the west side of Panther Way (directly across from Edward Street). The existing warehouse facility would remain, and the proposed Senior Village mixed-use development would be constructed at the rear of the site. The proposed project will include 49 age-restricted (Age 55 and Older) residential housing units and a 5,000 square foot fine dining restaurant. Primary access to the proposed Senior Village mixed-use development will be provided by a new site driveway to be constructed on the west side of Panther Way (approximately 380 feet north of Edward Street), with secondary, gated emergency only access to be provided at the rear of the existing warehouse facility.

Our assessment is based on a review of the proposed site plan (Senior Village Panther Way, Franklin, Massachusetts – Dated July 9, 2024) prepared by United Consultants, Inc., and the anticipated vehicle trip generation characteristics of the proposed uses on site based on data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*.

The ITE data indicates that the proposed project is expected to generate approximately 19 vehicle trips (7 entering trips and 12 exiting trips) during the weekday morning commuter peak hour and 56 vehicle trips (36 entering trips and 20 exiting trips) during the weekday evening commuter peak hour. These minor traffic increases are not anticipated to have a noticeable impact on future traffic operations on the surrounding area roadways.

This letter documents our findings.

### **Project Description**

The project site consists of approximately 14.32± acres of land located on the west side of Panther Way in Franklin, Massachusetts. The project site currently supports an existing 39,062 square foot warehouse facility (100 Panther Way), accessed by a single commercial driveway located on the west side of Panther Way (directly across from Edward Street).

As currently proposed, the existing warehouse facility would remain, and the proposed Senior Village mixed-use development would be constructed at the rear of the site. The proposed project will include 48 age-restricted (Age 55 and Older) residential housing units and a 5,000 square foot fine dining restaurant. Primary access to the proposed Senior Village missed-use development will be provided by a new site driveway to be constructed on the west side of Panther Way (approximately 380 feet north of Edward Street), with secondary, gated emergency only access to be provided at the rear of the existing warehouse facility.

### Vehicle Trip Generation Summary

Vehicle trip generation estimates for proposed Senior Village mixed-use development were based on data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (2021). The proposed project will provide a total of 49 age-restricted (55 and Older) residential units, including 9 single-family units and 40 multifamily units and 5,000 square feet of commercial space. Vehicle trip estimates for the age-restricted residential units were based on the ITE trip generation rates for Land Use Code (LUC) 251 (Senior Adult Housing – Single-Family) assuming 9 units, and LUC 252 (Senior Adult Housing - Multi-Family Housing) assuming 40 units. For the purpose of this study, vehicle trip generation estimates associated with the commercial space were based on LUC 931 (Fine Dining Restaurant). The vehicle trip generation calculations are provided in the Attachments. A summary of the vehicle trip generation estimates for the weekday daily and weekday morning and evening commuter peak hours is provided in Table 1.

**Table 1 Trip Generation Summary**

Time Period	Residential Development			Commercial	Total Project Trips
	Single Family Home <sup>1</sup> (9 Units)	Multi-Family Homes <sup>2</sup> (40 Units)	Subtotal Residential Trips	Fine Dining Restaurant (5,000 Sq. Ft.) <sup>3</sup>	
<b>Weekday Daily</b>					
Enter	39	70	109	210	<b>319</b>
Exit	<u>39</u>	<u>70</u>	<u>109</u>	<u>210</u>	<b>319</b>
<i>Total</i>	78	140	218	420	<b>638</b>
<b>Weekday Morning Peak Hour</b>					
Enter	2	3	5	2	<b>7</b>
Exit	<u>4</u>	<u>6</u>	<u>10</u>	<u>2</u>	<b>12</b>
<i>Total</i>	6	9	15	4	<b>19</b>
<b>Weekday Evening Peak Hour</b>					
Enter	4	6	10	26	<b>36</b>
Exit	<u>3</u>	<u>4</u>	<u>7</u>	<u>13</u>	<b>20</b>
<i>Total</i>	7	10	17	39	<b>56</b>

<sup>1</sup>Source: ITE Trip Generation, 11<sup>th</sup> Edition, Land Use Code 251 (Senior Adult Housing – Single Family) assuming 9 units.

<sup>2</sup>Source: ITE Trip Generation, 11<sup>th</sup> Edition, Land Use Code 252 (Senior Adult Housing – Multifamily) assuming 40 units.

<sup>3</sup>Source: ITE Trip Generation, 11<sup>th</sup> Edition, Land Use Code 931 (Fine Dining Restaurant) assuming 5,000 square feet

As shown in Table 1, the proposed project is expected to generate approximately 638 trips (319 entering trips and 319 exiting trips) on a typical weekday, with 19 trips (7 entering trips and 12 exiting trips) during the weekday morning peak hour and 56 trips (36 entering trips and 20 exiting trips) during the weekday evening peak hour. These minor traffic increases are not anticipated to have a noticeable impact to future traffic operations on the surrounding area roadways.

**Conclusion**

The proposed development is expected to have minimal impacts to the surrounding area roadways. The site is expected to generate approximately 638 vehicles trips on a typical weekday, with 19 and 56 new vehicle trips during the morning and evening peak hours, respectively. These minor traffic increases are not expected to have a noticeable impact on future traffic operations on the surrounding area roadways.

We trust that this letter will prove useful to the Town of Franklin in their review of this proposed mixed-use development. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,



Robert Woodland, PE  
Senior Project Manager

P:\373141\143-373141-24002\DOCS\REPORTS\TRAFFIC IMPACT ASSESSMENT SENIOR VILLAGE MIXED-USE DEVELOPMENT FRANKLIN MA 10 10 2024.DOCX

**Attachments**

# 931 - Fine Dining Restaurant (5,000 SQ FT)

## Weekday Daily

**Query**

DATA SOURCE:  
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:  
931

LAND USE GROUP:  
(900-999) Services

LAND USE:  
931 - Fine Dining Restaurant

LAND USE SUBCATEGORY:  
All Sites

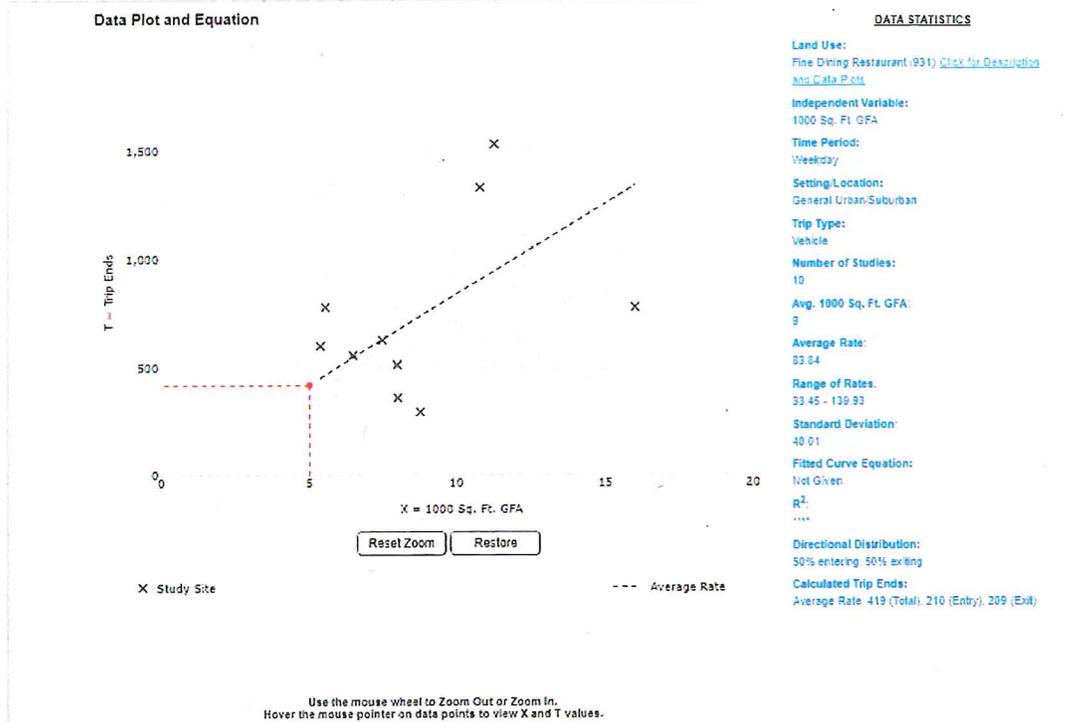
SETTING/LOCATION:  
General Urban/Suburban

INDEPENDENT VARIABLE (IV):  
1000 Sq. Ft. GFA

TIME PERIOD:  
Weekday

TRIP TYPE:  
Vehicle

ENTER IV VALUE TO CALCULATE TRIP:  
5



# 931 - Fine Dining Restaurant (5,000 SQ FT)

## Weekday AM Peak Hour of Adjacent Street

**Query**

DATA SOURCE:  
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:  
931

LAND USE GROUP:  
(900-999) Services

LAND USE:  
931 - Fine Dining Restaurant

LAND USE SUBCATEGORY:  
All Sites

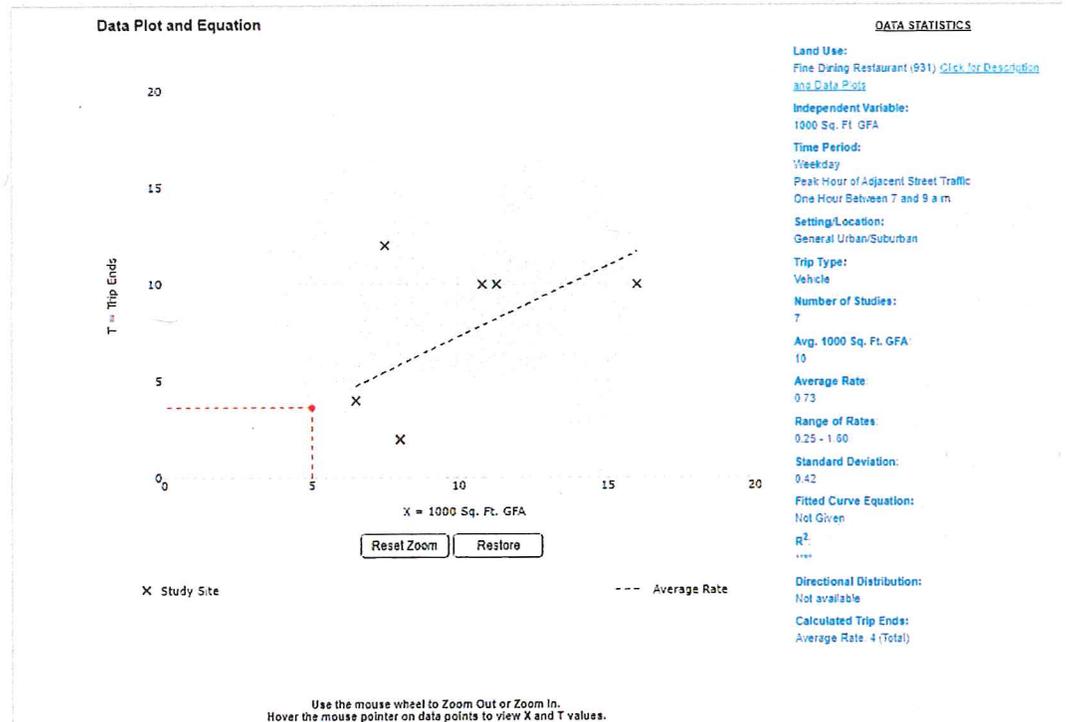
SETTING/LOCATION:  
General Urban/Suburban

INDEPENDENT VARIABLE (IV):  
1000 Sq. Ft. GFA

TIME PERIOD:  
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:  
Vehicle

ENTER IV VALUE TO CALCULATE TRIP:  
5



# 931 - Fine Dining Restaurant (5,000 SQ FT)

## Weekday PM Peak Hour of Adjacent Street

Query

DATA SOURCE:  
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:  
931

LAND USE GROUP:  
(900-999) Services

LAND USE:  
931 - Fine Dining Restaurant

LAND USE SUBCATEGORY:  
All Sites

SETTING/LOCATION:  
General Urban/Suburban

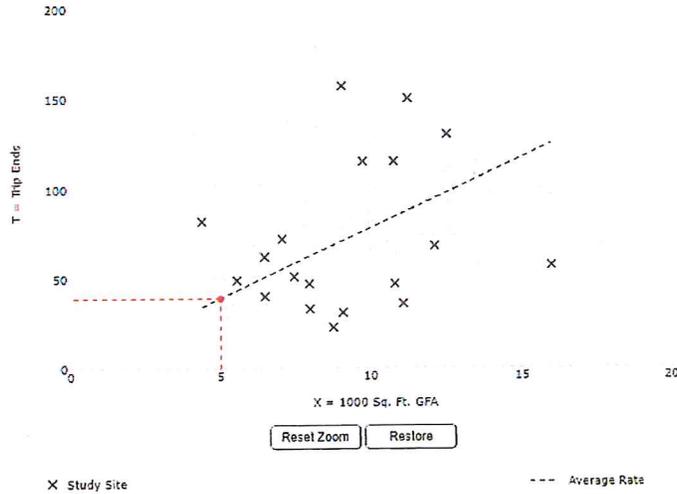
INDEPENDENT VARIABLE (IV):  
1000 Sq. Ft. GFA

TIME PERIOD:  
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:  
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:  
5 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:  
Fine Dining Restaurant (931) [Click for Description and Data Points](#)

Independent Variable:  
1000 Sq. Ft. GFA

Time Period:  
Weekday  
Peak Hour of Adjacent Street Traffic  
One Hour Between 4 and 6 p.m.

Setting/Location:  
General Urban/Suburban

Trip Type:  
Vehicle

Number of Studies:  
13

Avg. 1000 Sq. Ft. GFA:  
9

Average Rate:  
7.00

Range of Rates:  
2.62 - 19.68

Standard Deviation:  
4.49

Fitted Curve Equation:  
Not Given

R<sup>2</sup>:  
0.000

Directional Distribution:  
67% entering, 33% exiting

Calculated Trip Ends:  
Average Rate: 39 (Total); 26 (Entry); 13 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.

# 251 - Senior Adult Housing – Single-Family – 9 Units

## Weekday Daily

**Query**

**DATA SOURCE:**  
Trip Generation Manual, 11th Ed

**SEARCH BY LAND USE CODE:**  
251

**LAND USE GROUP:**  
(200-299) Residential

**LAND USE:**  
251 - Senior Adult Housing - Single-Family

**LAND USE SUBCATEGORY:**  
All Sites

**SETTING/LOCATION:**  
General Urban/Suburban

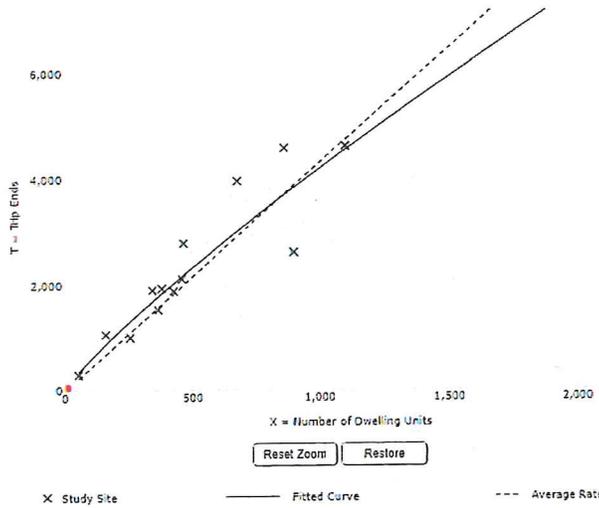
**INDEPENDENT VARIABLE (IV):**  
Dwelling Units

**TIME PERIOD:**  
Weekday

**TRIP TYPE:**  
Vehicle

**ENTER IV VALUE TO CALCULATE TRIPS:**  
9

Data Plot and Equation



DATA STATISTICS

**Land Use:**  
Senior Adult Housing - Single-Family (251) [Click for Description and Data Plots](#)

**Independent Variable:**  
Dwelling Units

**Time Period:**  
Weekday

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

**Trip Type:**  
Vehicle

**Number of Studies:**  
15

**Avg. Num. of Dwelling Units:**  
645

**Average Rate:**  
4.31

**Range of Rates:**  
2.90 - 6.95

**Standard Deviation:**  
1.07

**Fitted Curve Equation:**  
 $\ln(T) = 0.65 \ln(X) + 2.47$

**R<sup>2</sup>:**  
0.94

**Directional Distribution:**  
50% entering, 50% exiting

**Calculated Trip Ends:**  
Average Rate: 39 (Total); 19 (Entry); 20 (Exit)  
Fitted Curve: 77 (Total); 38 (Entry); 39 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.

# 251 - Senior Adult Housing – Single-Family – 9 Units

## Weekday AM Peak Hour of Adjacent Street

**Query**

**DATA SOURCE:**  
Trip Generation Manual, 11th Ed

**SEARCH BY LAND USE CODE:**  
251

**LAND USE GROUP:**  
(200-299) Residential

**LAND USE:**  
251 - Senior Adult Housing - Single-Family

**LAND USE SUBCATEGORY:**  
All Sites

**SETTING/LOCATION:**  
General Urban/Suburban

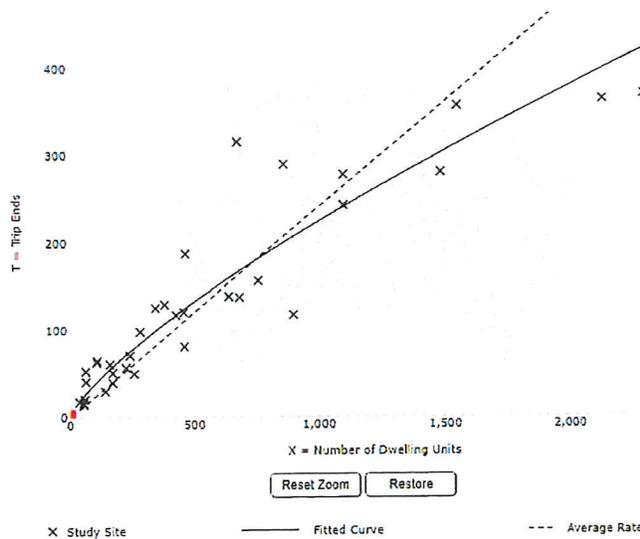
**INDEPENDENT VARIABLE (IV):**  
Dwelling Units

**TIME PERIOD:**  
Weekday, Peak Hour of Adjacent Street Traffic

**TRIP TYPE:**  
Vehicle

**ENTER IV VALUE TO CALCULATE TRIPS:**  
9

Data Plot and Equation



DATA STATISTICS

**Land Use:**  
Senior Adult Housing - Single-Family (251) [Click for Description and Data Plots](#)

**Independent Variable:**  
Dwelling Units

**Time Period:**  
Weekday  
Peak Hour of Adjacent Street Traffic  
One Hour Between 7 and 9 a.m.

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

**Trip Type:**  
Vehicle

**Number of Studies:**  
34

**Avg. Num. of Dwelling Units:**  
557

**Average Rate:**  
0.24

**Range of Rates:**  
0.13 - 0.94

**Standard Deviation:**  
0.10

**Fitted Curve Equation:**  
 $\ln(T) = 0.78 \ln(X) + 0.16$

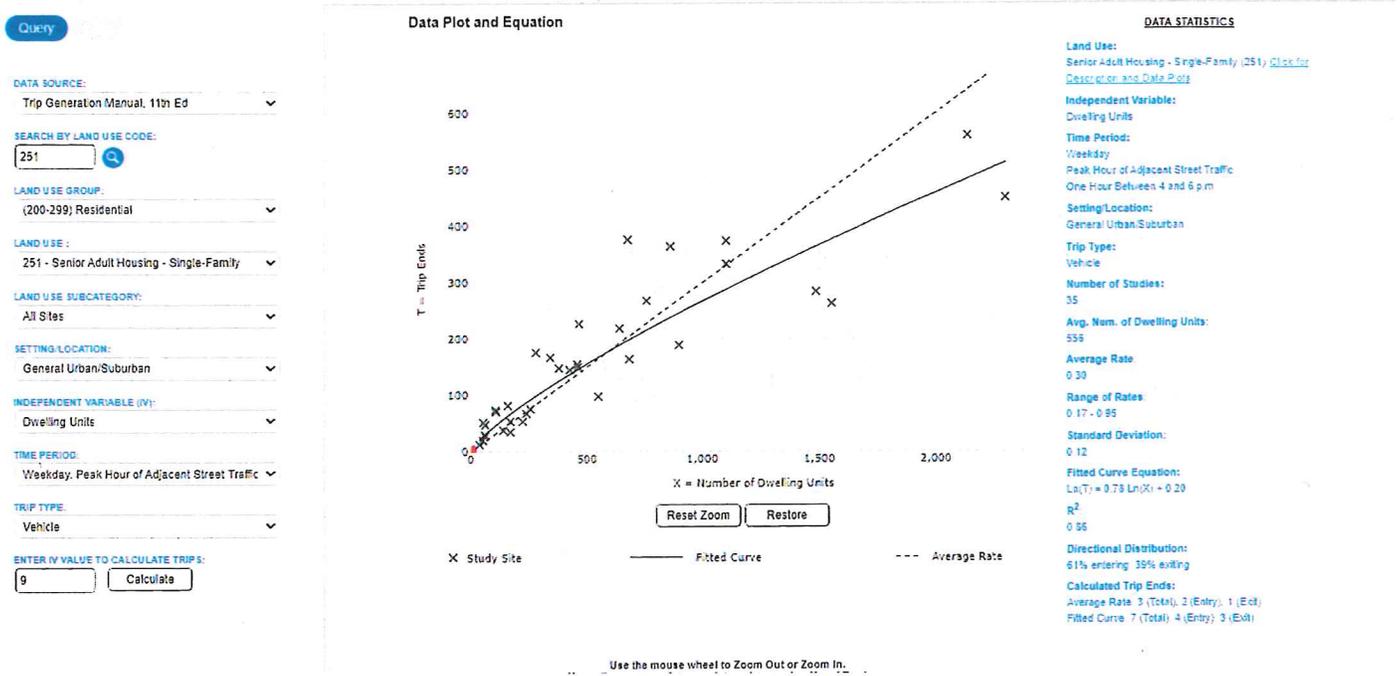
**R<sup>2</sup>:**  
0.68

**Directional Distribution:**  
33% entering, 67% exiting

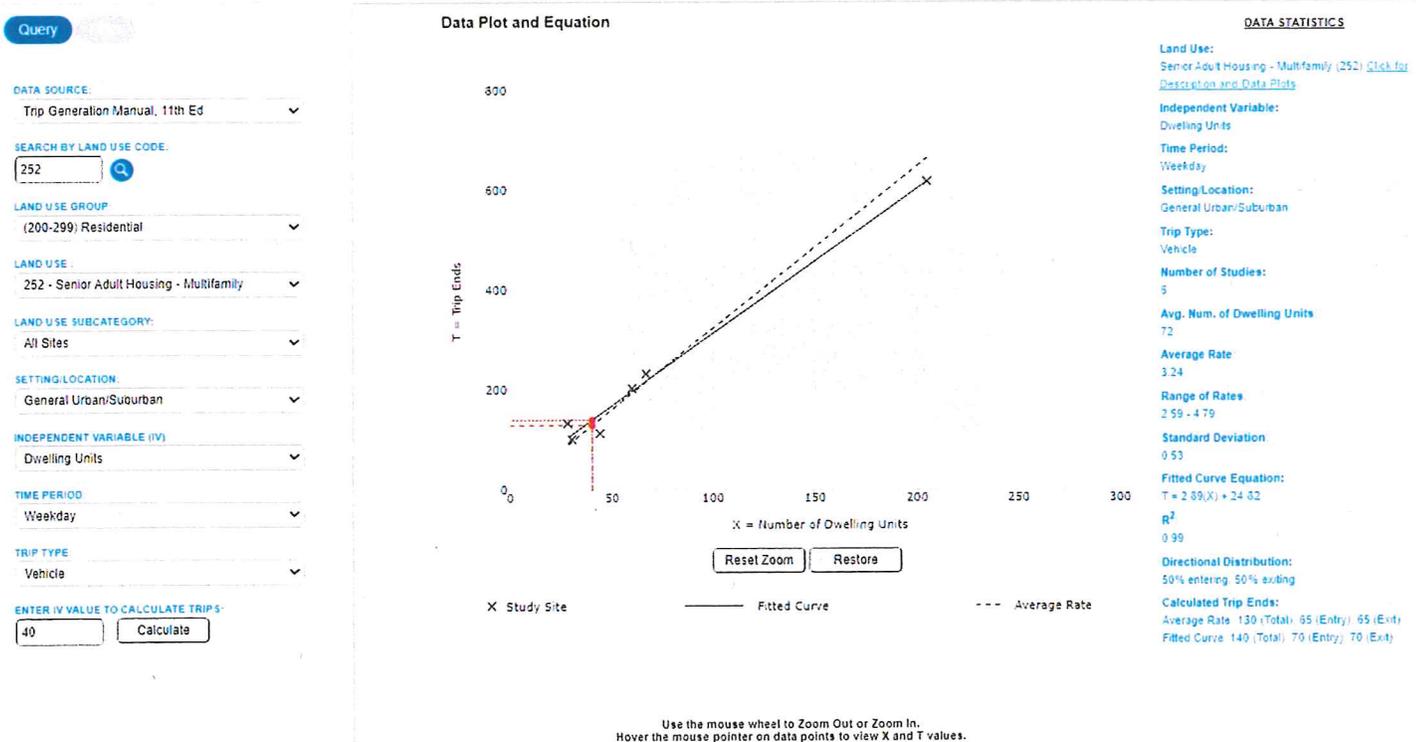
**Calculated Trip Ends:**  
Average Rate: 2 (Total); 1 (Entry); 1 (Exit)  
Fitted Curve: 6 (Total); 2 (Entry); 4 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.

## 251 - Senior Adult Housing – Single-Family – 9 Units Weekday PM Peak Hour of Adjacent Street

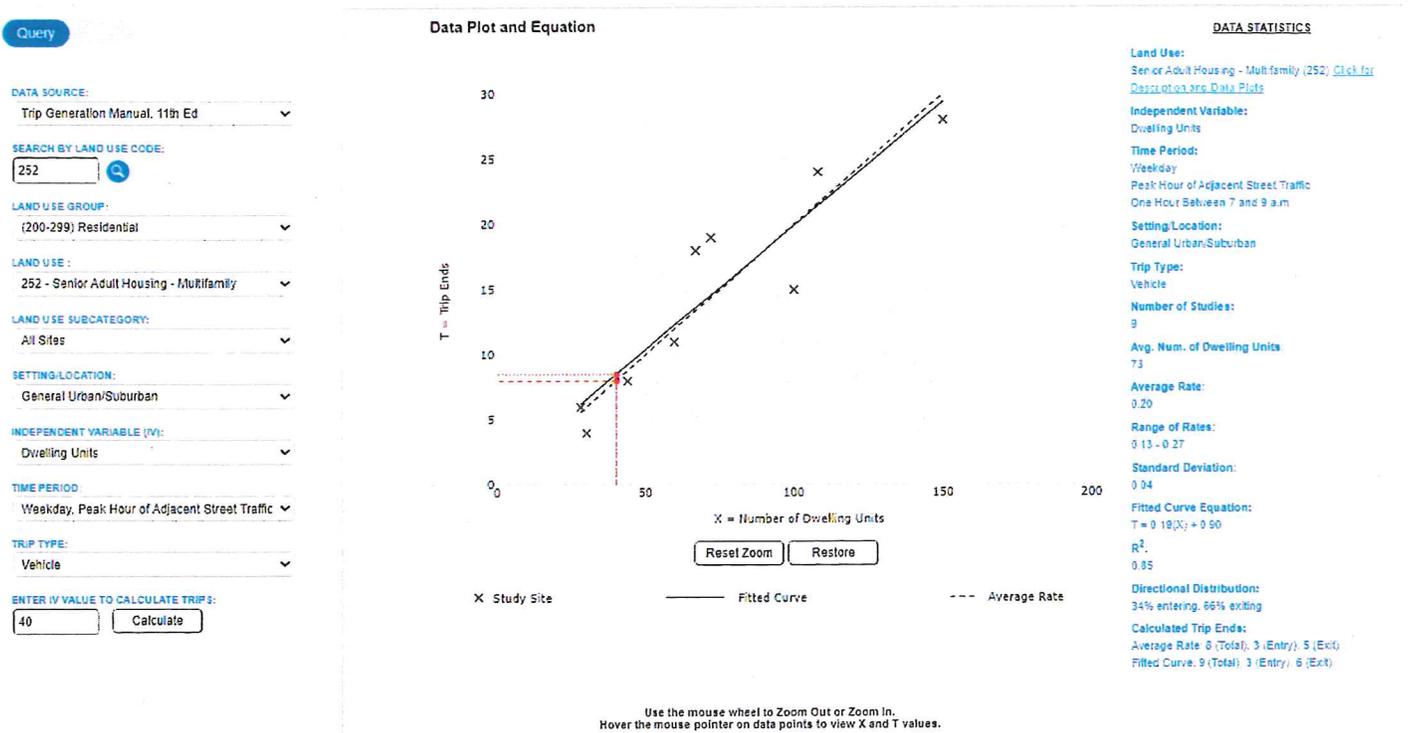


## 252 – Senior Adult Housing – Multi-Family – 40 Units Weekday Daily



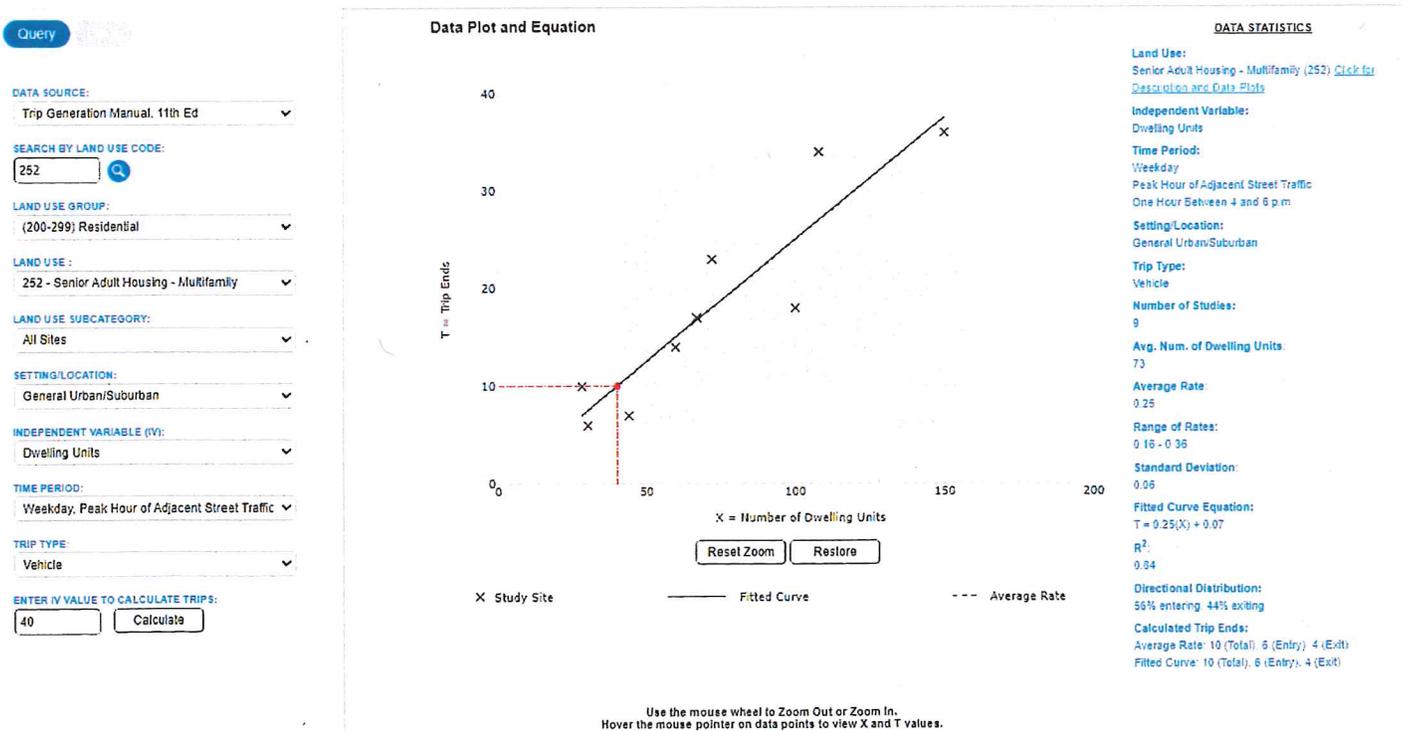
## 252 – Senior Adult Housing – Multi-Family – 40 Units

### Weekday AM Peak Hour of Adjacent Street



## 252 – Senior Adult Housing – Multi-Family – 40 Units

### Weekday PM Peak Hour of Adjacent Street



Camford Property Group, Inc.  
37 East Central St  
Franklin, MA 02038

Dean Co-Operative Bank  
53-7203/2113

4711

12/19/2024

PAY TO THE ORDER OF Town of Franklin

\$\*\*5,250.00

Five thousand two hundred fifty and 00/100\*\*\*\*\* DOLLARS

PROTECTED AGAINST FRAUD

Town of Franklin



MEMO Panther Way Senior Housing-Planning Board

⑈004711⑈ ⑆211372035⑆ 2001235130⑈

Camford Property Group, Inc.

4711

12/19/2024

Town of Franklin

Panther Way Senior Housing-Planning Board

5,250.00

Camford Checking 5130

Panther Way Senior Housing-Planning Board

5,250.00

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