

Ref: 8587

August 23, 2024

Mr. Zachary McBride, Chair  
Zoning Board of Appeals  
Town of Sherborn  
19 Washington Street  
Sherborn, MA 01770

Re: Transportation Impact Assessment Update  
The Pines – 41 North Main Street (Route 27)  
Sherborn, Massachusetts

Dear Chair McBride and Members of the Zoning Board of Appeals:

Vanasse & Associates, Inc. (VAI) is providing an update to the October 2020 *Transportation Impact Assessment* (the “October 2020 TIA”) that was prepared by VAI in support of the proposed The Pines multifamily residential community to be located at 41 North Main Street (Route 27) in Sherborn, Massachusetts (hereafter referred to as the “Project”). The purpose of this update is to adjust the trip-generation calculations for the Project to reflect refinements to the development program that have occurred since the preparation of the October 2020 TIA and to evaluate changes to the access configuration for the Project.

Based on this assessment we have concluded that the refinements to the development program for the Project will result in a reduction in traffic (up to 57 percent during the weekday peak hours) and the associated impacts on the transportation infrastructure from the development program that was assessed in the October 2020 TIA. In addition, the reconfiguration of the Project site access will serve to disperse trips between Route 27, Hunting Lane and Powderhouse Lane, thereby resulting in improved circulation within the Project site, enhanced emergency response and an overall improvement in traffic flow along North Main Street.

The following details our assessment of the refinements to the Project.

## **PROJECT DESCRIPTION**

As currently proposed, the Project will entail the construction of a 28-unit multifamily residential community be located at 41 North Main Street (Route 27) in Sherborn, Massachusetts. The proposed residential units will be dispersed between 11 two-story buildings consisting of five (5) duplex buildings and six (6) triplex buildings. The development program that was assessed in the October 2020 TIA consisted of two (2) three-story multifamily residential buildings containing 30 units each, or 60 units total.

Access to the Project site has been revised from the configuration that was assessed in the October 2020 TIA and now includes three (3) driveways configured as follows: a full access driveway that will intersect the west side of Route 27 opposite Elliot Street (Route 16) that will form the fourth leg of the intersection and will be incorporated into the existing traffic signal system; a full access driveway that will intersect the south side of Hunting Lane approximately 475 feet west of Route 27; and a full access driveway that will intersect the west end of

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Powderhouse Lane. The previous access configuration for the Project consisted of the use of the Powderhouse Lane driveway to serve as the primary access and the Hunting Lane access serving as a secondary, gated access for emergency vehicles only.

On-site parking will be provided for two (2) vehicles per unit that will include one garage parking space and one parking space in the driveway leading to the garage. In addition, seven (7) visitor parking spaces will be provided in a separate surface parking lot.

### **TRIP-GENERATION SUMMARY AND COMPARISON**

In order to establish the traffic characteristics of the Project, trip-generation statistics published by the Institute of Transportation Engineers (ITE)<sup>1</sup> were used, consistent with the methodology that was used in the October 2020 TIA. Table 1 summarizes and compares the traffic characteristics of the current development program (28 multifamily units) to the development program that was assessed in the October 2020 TIA (60 multifamily units), with the detailed trip-generation calculations attached. We note that the trip-generation calculations for the Project that were presented in the October 2020 TIA were based on the information that was presented in the 10<sup>th</sup> Edition of the ITE Trip Generation manual;<sup>2</sup> the current version of the Trip Generation manual is the 11<sup>th</sup> edition, which was published in 2021. The 11<sup>th</sup> edition includes expanded land use categories and definitions for residential land uses. The expanded categories would classify the development program that was assessed in the October 2020 TIA as a low-rise (up to three stories) multifamily residential development vs. the mid-rise category as defined in the 10<sup>th</sup> edition, which was defined as multifamily buildings with between three and ten stories. For the purpose of this comparison, the trip-generation values for the Project as presented in Table 5 of the October 2020 TIA are presented in Table 1.

**Table 1**  
**TRIP-GENERATION SUMMARY AND COMPARISON**

Time Period	(A) Current Development Program (28 units) <sup>a</sup>	(B) October 2020 TIA Development Program (60 units) <sup>b</sup>	(A – B) Difference
<i>Average Weekday:</i>	164	326	-162
<i>Weekday Morning Peak Hour:</i>	9	21	-12
<i>Weekday Evening Peak Hour:</i>	13	27	-14

<sup>a</sup>Based on ITE Land Use Code 220, *Single-Family Attached Housing*.

<sup>b</sup>As presented in Table 5 of the October 2020 TIA.

<sup>1</sup>*Trip Generation*, 11<sup>th</sup> Edition; Institute of Transportation Engineers; Washington, DC; 2021.

<sup>2</sup>*Trip Generation*, 10<sup>th</sup> Edition; Institute of Transportation Engineers; Washington, DC; 2017.

As can be seen in Table 1, the current development program (28 multifamily residential units) is expected to generate approximately 1674 vehicle trips on an average weekday (two-way, 24-hour volume), with nine (9) vehicle trips expected during the weekday morning peak-hour and 13 vehicle trips expected during the weekday evening peak-hour.

In comparison to the development program that was assessed in the October 2020 TIA (60 multifamily residential units), the current development program is expected to generate approximately 162 *fewer* vehicle trips on an average weekday (an approximate 47 percent reduction), with 12 *fewer* vehicle trips expected during the weekday morning peak-hour (an approximate 57 percent reduction) and 14 *fewer* vehicle trips expected during the weekday evening peak-hour (an approximate 52 percent reduction).

***Based on this comparative assessment, it is clear that the current development program for the Project will be less impactful on the transportation infrastructure than the development program that was assessed in the October 2020 TIA, with traffic volumes expected to be reduced by up to 57 percent.***

## **SITE ACCESS EVALUATION**

As currently proposed, the primary access to the Project site will be provided by way of a full access driveway that will intersect the west side of Route 27 opposite Route 16 that will form the fourth leg of the intersection and will be incorporated into the existing traffic signal system, with secondary access to be provided by way of driveways that will intersect the south side of Hunting Lane and the north end of Powderhouse Lane. This refined access configuration will afford direct access to Route 27 for the Project by way of a signalized intersection, where the movement of motor vehicles, pedestrians and bicyclists can be accommodated under traffic signal control. This is a much improved access configuration for the Project and will also serve to enhance mobility by providing connectivity to the existing sidewalk network along both Route 27 and Route 16. In addition, maintaining secondary access by way of Hunting Lane and Powderhouse Lane will serve to disperse trips between three (3) access points and will facilitate emergency vehicle access.

## **SUMMARY**

VAI has prepared an update to the October TIA that was prepared in support of the proposed The Pines multifamily residential community to be located at 41 North Main Street (Route 27) in Sherborn, Massachusetts. This update has evaluated the change in the traffic characteristics and associated impacts on the transportation infrastructure resulting from the refinements to the development program that have occurred since the preparation of the October 2020 TIA and has assessed the changes to the access configuration for the Project. Based on this assessment we have concluded that the refinements to the development program for the Project will result in a reduction in traffic (up to 57 percent during the weekday peak hours) and the associated impacts on the transportation infrastructure from the development program that was assessed in the October 2020 TIA. In addition, the reconfiguration of the Project site access will serve to disperse trips between Route 27, Hunting Lane and Powderhouse Lane, thereby resulting in improved circulation within the Project site, enhanced emergency response and an overall improvement in traffic flow along North Main Street.

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If you should have any questions regarding our updated assessment of the Project, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.



Jeffrey S. Dirk, P.E., PTOE, FITE  
Managing Partner

*Professional Engineer in CT, MA, ME, NH, RI and VA*

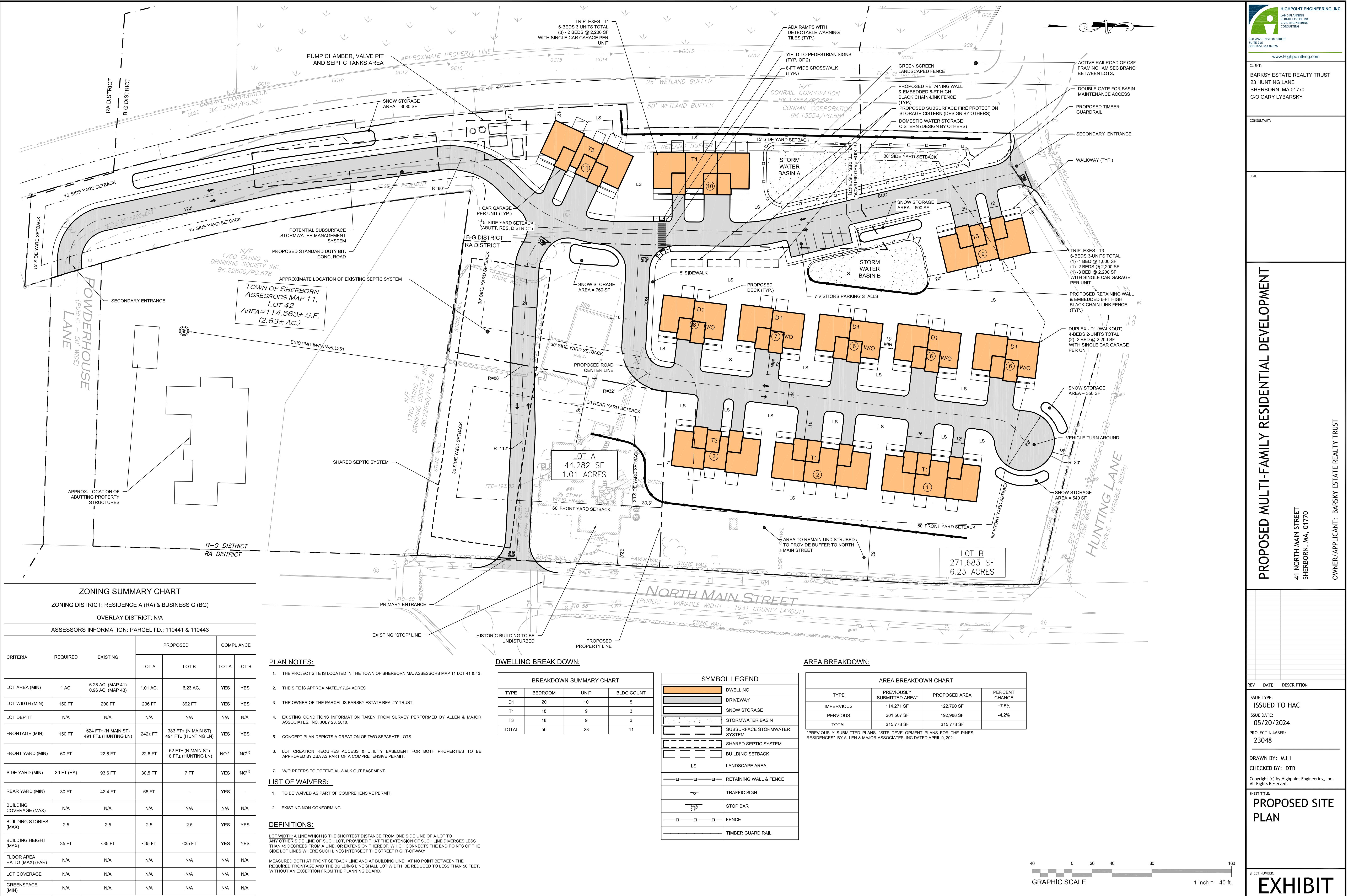
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Attachments

## PROPOSED MULTI-FAMILY RESIDENTIAL DEVELOPMENT

41 NORTH MAIN STREET  
SHERBORN, MA, 01770

OWNER/APPLICANT: BARKSY ESTATE REALTY TRUST





# Graph Look Up

ITETripGen Web-based App

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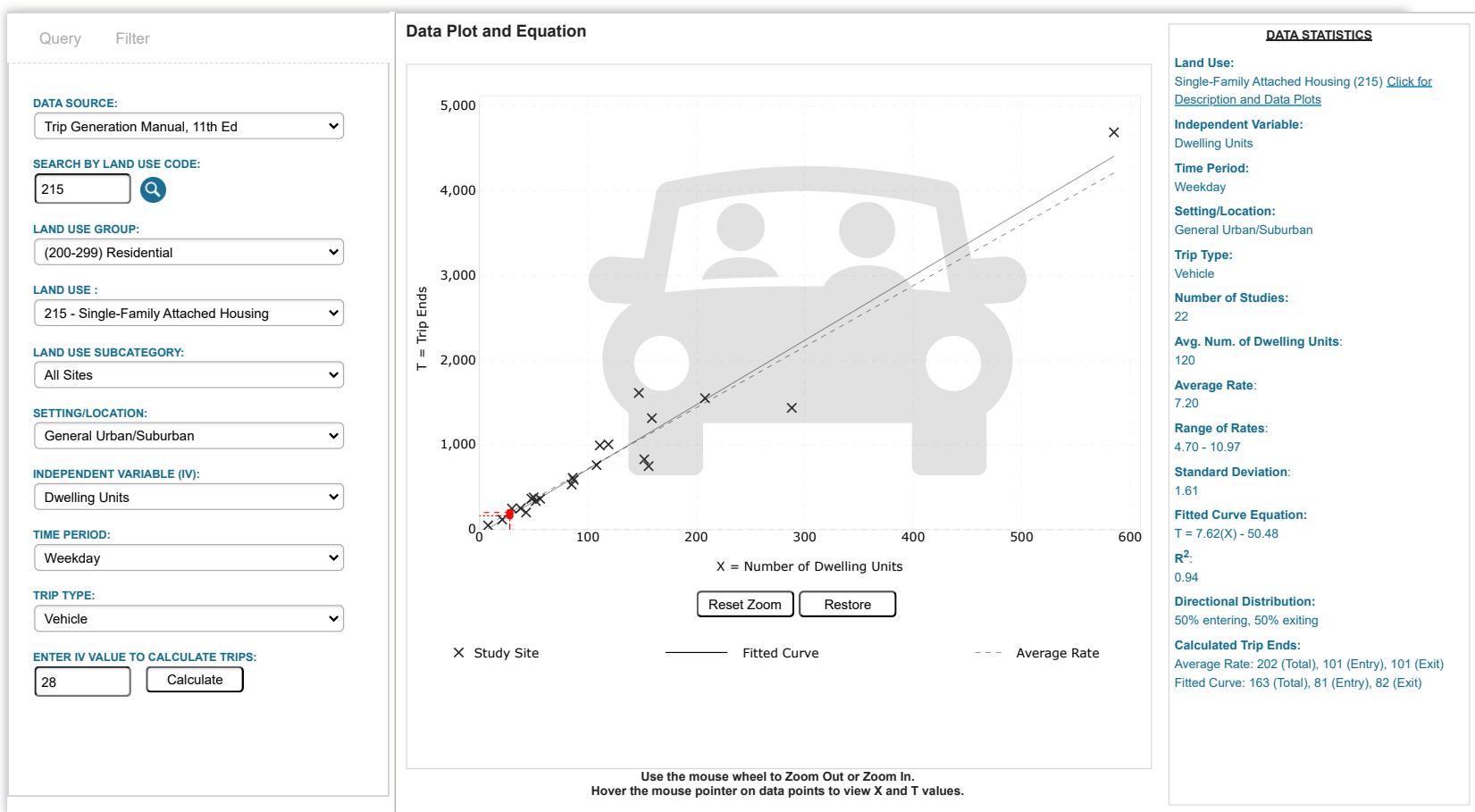
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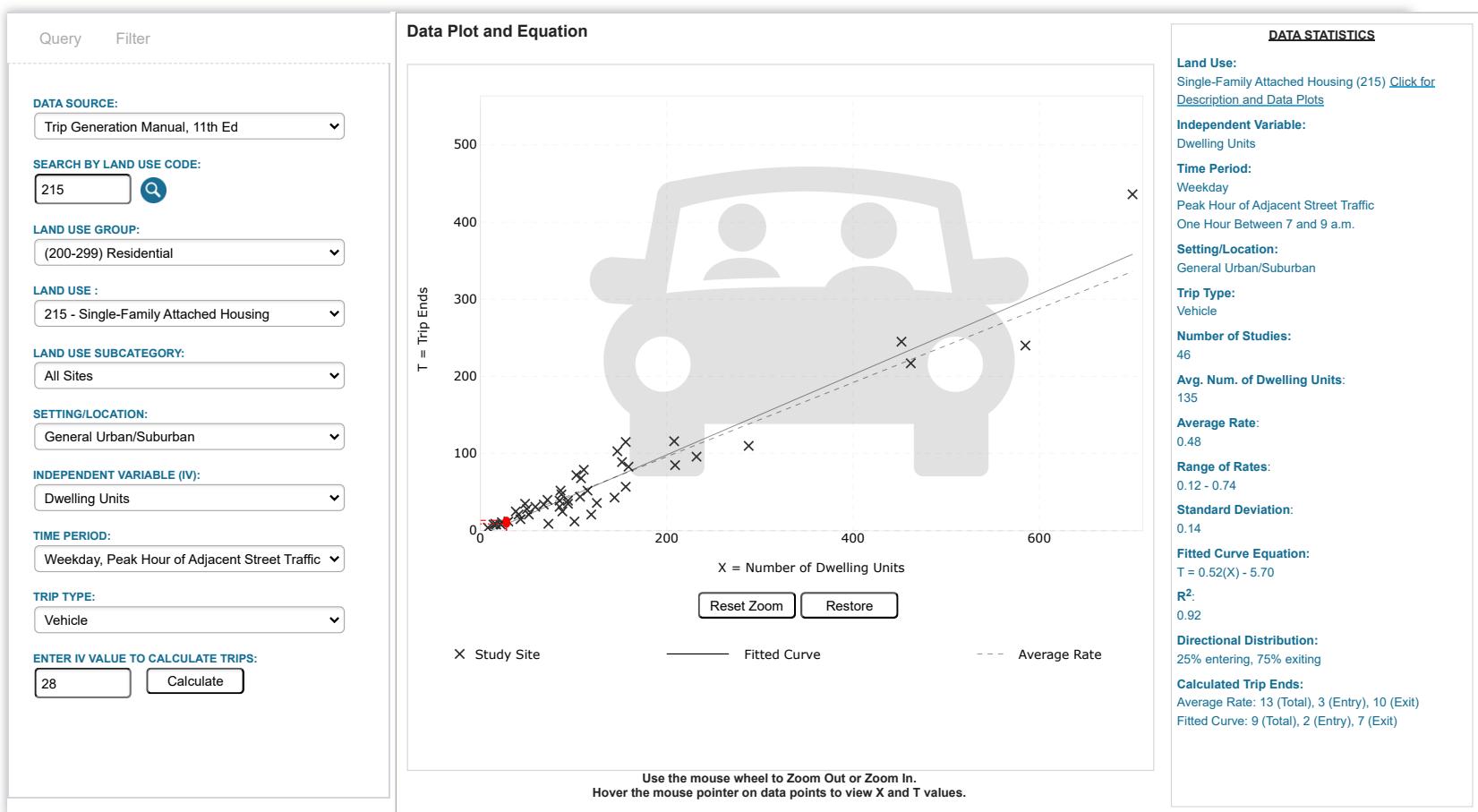
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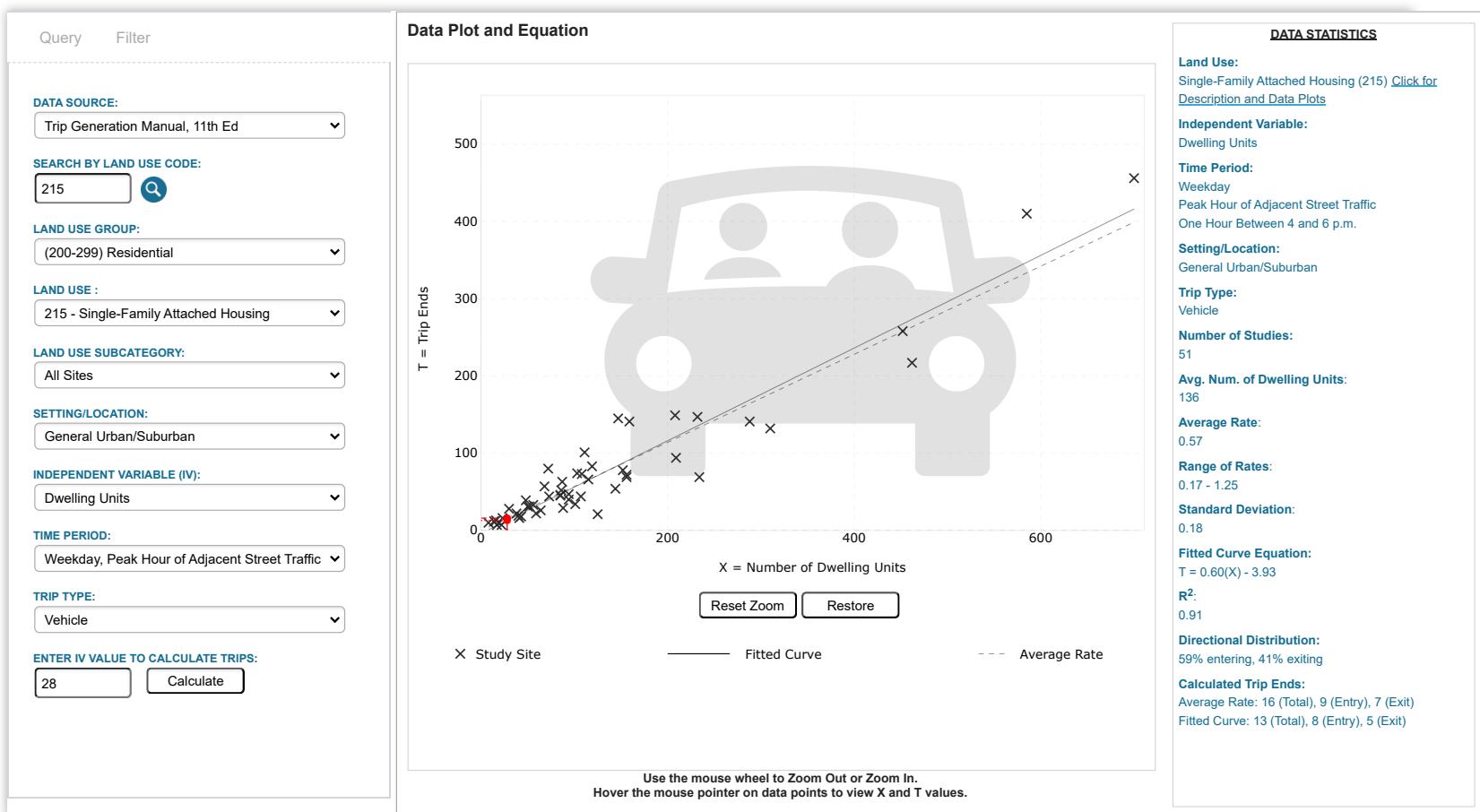
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