



## Technical Memorandum

To: El Paso County Planning and Community Development  
From: SMH Consultants, Brett Louk  
Date: 06/03/2022  
Subject: Ivilo Subdivision Traffic Memo - PCD File #MS-22-08

### INTRODUCTION

SMH Consultants P.A. (SMH) was asked to prepare a traffic memo for the proposed Ivilo Subdivision. The intent of the traffic memo is to discuss the potential impacts, to the adjacent road network, of the proposed development. The traffic memo will satisfy the requirements as outlined in the El Paso County Engineering Criteria Manual (ECM).

### METHODOLOGY

Per the ECM, a Traffic Impact Study (TIS) is not required if the following criteria are satisfied.

- Vehicular Traffic: (1) Daily vehicle trip-end generation is less than 100 or the peak hour trip generation is less than 10; (2) there are no additional proposed minor or major roadway intersections on major collectors, arterials or State Highways; (3) the increase in the number of vehicular trips does not exceed the existing trip generation by more than 10 peak hour trips or 100 daily trip ends; (4) the change in the type of traffic to be generated (i.e. the addition of truck traffic) does not adversely affect the traffic currently planned for and accompanied within, and adjacent to, the property; (5) acceptable LOS on the adjacent public roadways, accesses, and intersections will be maintained; (6) no roadway or intersection in the immediate vicinity has a history of safety or accident problems; and (7) there is no change of land use with access to a State Highway.
- Pedestrian Traffic: Paved pedestrian facilities exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate any new pedestrian traffic.
- Bicycle Traffic: Paved bicycle lanes or paths exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate any new bicycle traffic.

### EXISTING CONDITIONS

The existing site is located at 6385 Vessey Road, is approximately 14.0 acres in size, and is zoned RR-5. The existing site has one driveway off of Vessey Road that served an existing single-family residence lost in the Black Forest Fire. The existing site generates 8 trips in the A.M. peak hour, 1 trip in the P.M. peak hour, and 15 daily trips. There is no pedestrian or bicycle traffic generated by the existing site, nor any of these facilities

existing. The pages from The Institute of Transportation Engineers *Trip Generation Manual, 11<sup>th</sup> Edition*, utilized for the trip generation have been attached to this memo.

## **PROPOSED CONDITIONS**

The site is proposed to be subdivided into three single-family residential lots. The three lots will be served by a new shared driveway off of Vessey Road. The proposed site will generate 9 trips in the A.M. peak hour, 4 trips in the P.M. peak hour, and 40 daily trips. This equates to a net increase of 1 trip in the A.M. peak hour, 3 trips in the P.M. peak hour, and 25 daily trips for the proposed subdivision. There are no proposed minor or major roadway connections; the acceptable LOS on adjacent public roadways, accesses, and intersections will be maintained; there are no roadways or intersections in the immediate vicinity with a history of safety or accident problems; and there is no change of land use with access to a State Highway. The proposed site will not generate any new pedestrian and bicycle traffic.

### **Traffic Impact Fee**

The traffic impact fee for a development in El Paso County is \$3,830 per single family dwelling. This proposed development will consist of two new single-family dwellings. The existing single-family dwelling is exempt from traffic impact fees.

Traffic impact fees: 2 single family dwelling units x \$3,830/dwelling unit = \$7,660

The Subdivider(s) agrees on behalf of him/herself and any developer or builder successors and assignees that Subdivider and/or said successors and assigns shall be required to pay traffic impact fees in accordance with the El Paso County Road Impact Fee Program Resolution (Resolution No. 16-454), or any amendments thereto, at or prior to the time of building permit submittals. The fee obligation, if not paid at final plat recording, shall be documented on all sales documents and on plat notes to ensure that a title search would find the fee obligation before sale of the property.

## **SUMMARY & RECOMMENDATION**

In summary, it can be seen that the proposed subdivision meets all the criteria for not requiring a TIS to be submitted.

From a traffic perspective, the proposed development is an acceptable use of the property identified. The proposed development will have minimal impact on the adjacent road network.

# Single-Family Detached Housing (210)

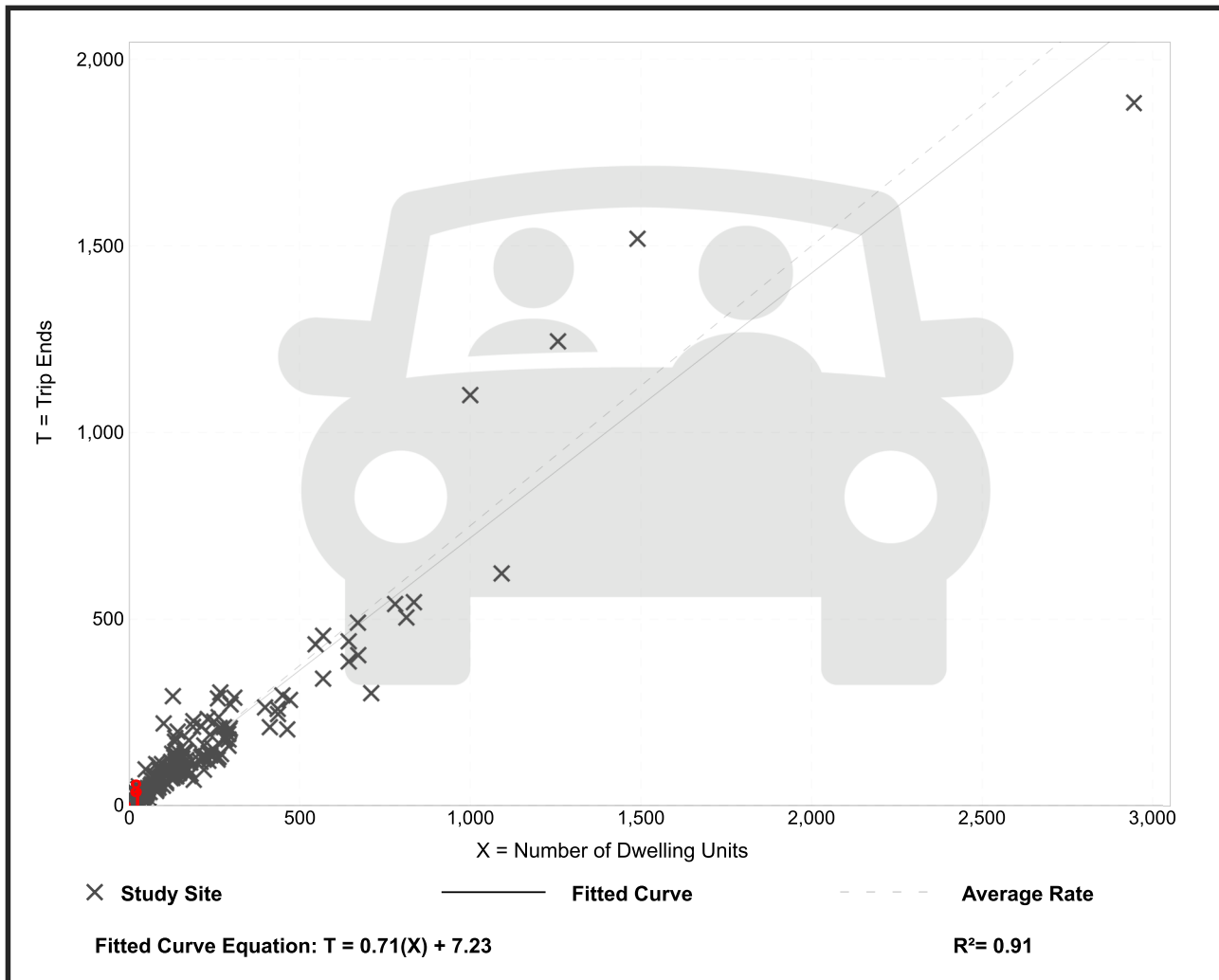
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 169  
Avg. Num. of Dwelling Units: 217  
Directional Distribution: 26% entering, 74% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.75	0.34 - 2.27	0.25

## Data Plot and Equation



# Single-Family Detached Housing (210)

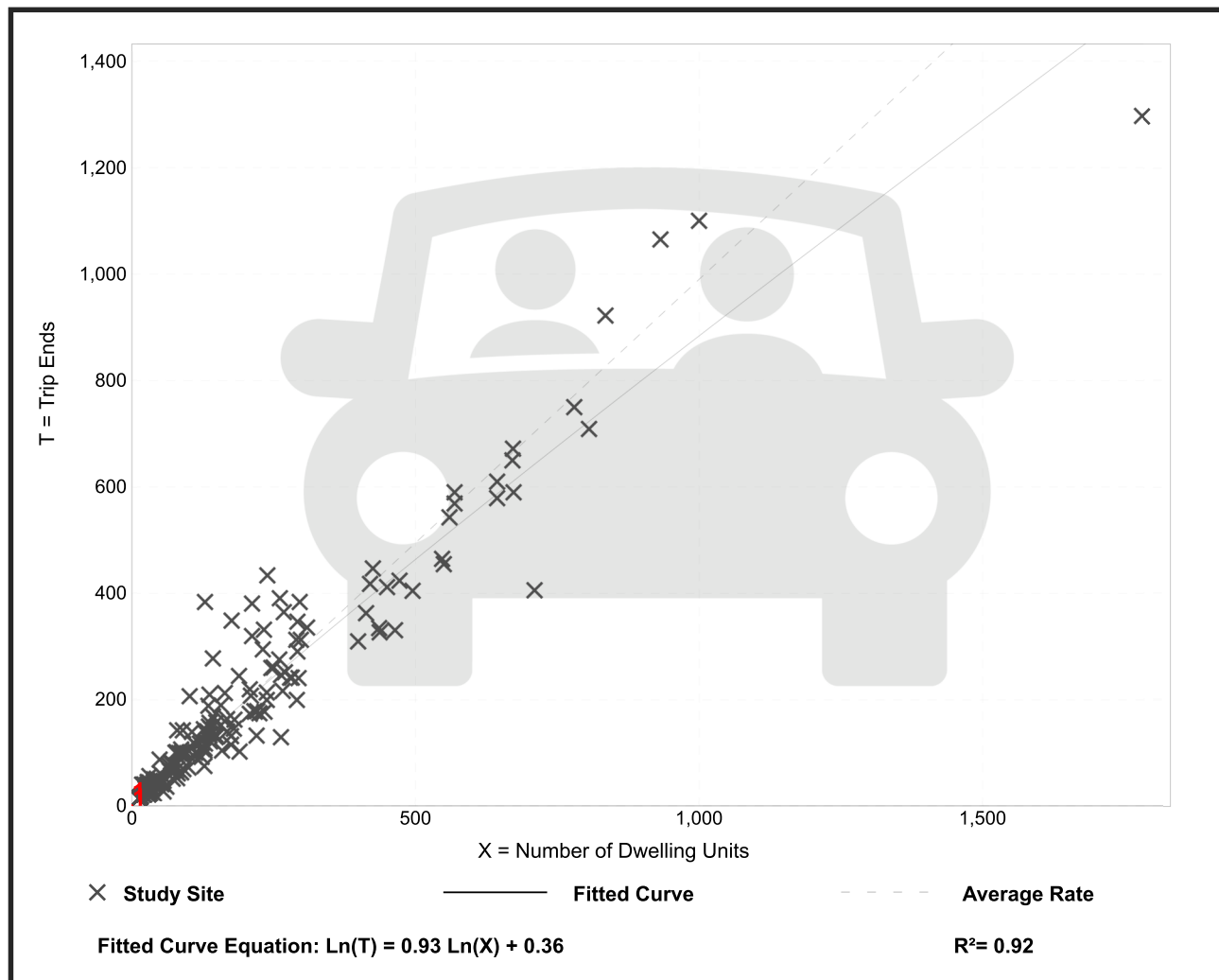
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 178  
Avg. Num. of Dwelling Units: 203  
Directional Distribution: 64% entering, 36% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.49 - 2.98	0.28

## Data Plot and Equation



# Single-Family Detached Housing (210)

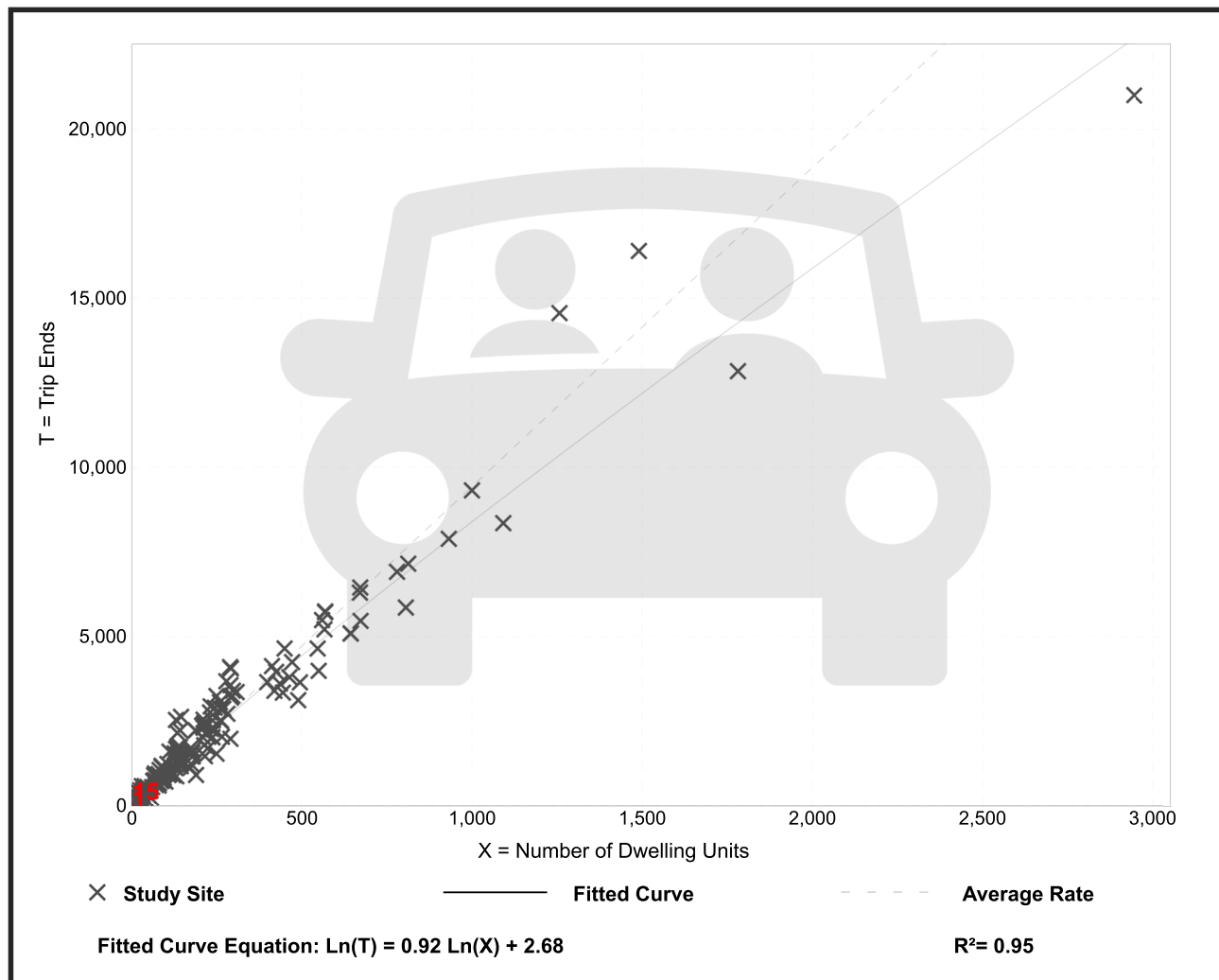
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 174  
Avg. Num. of Dwelling Units: 246  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

## Data Plot and Equation



# Single-Family Detached Housing (210)

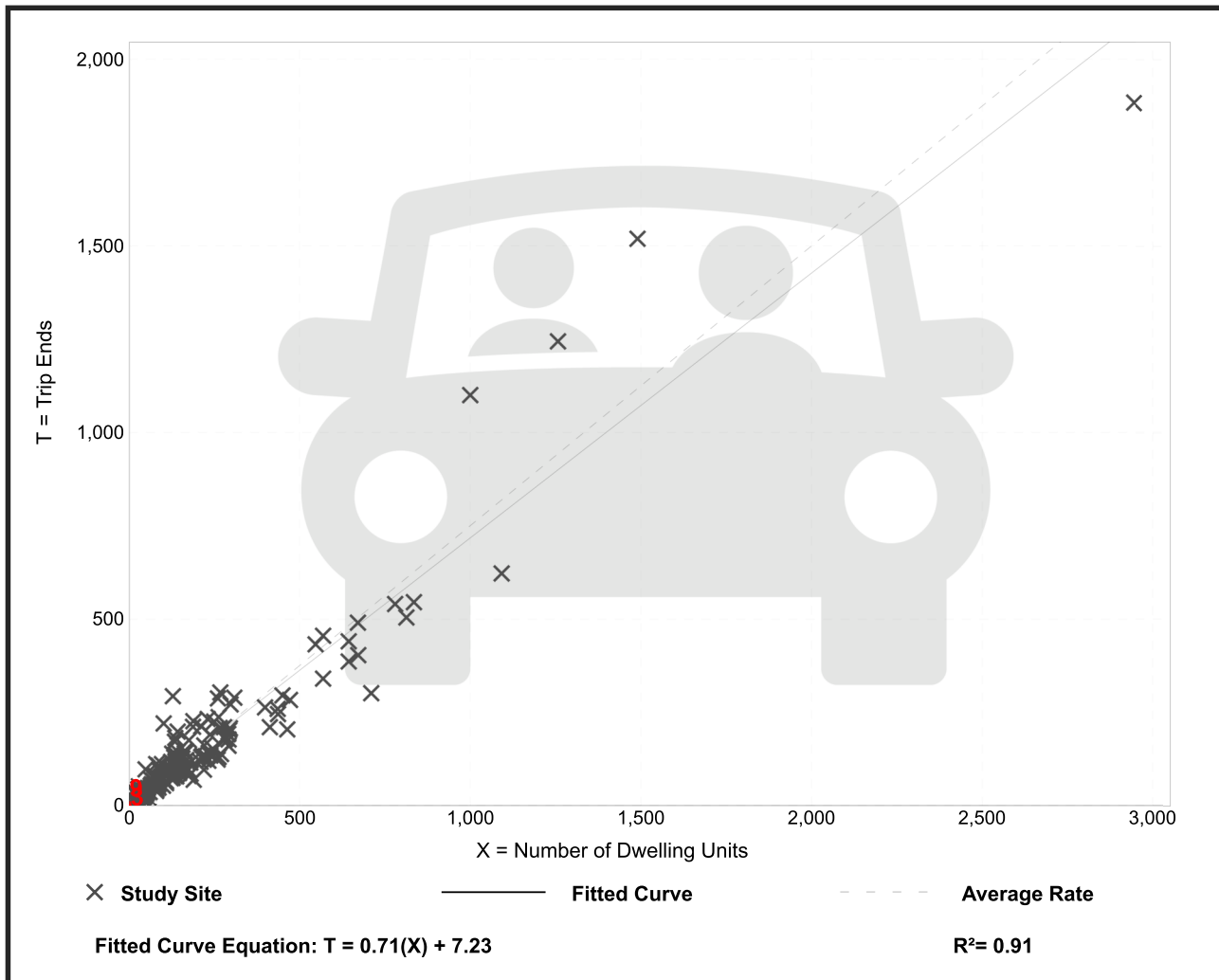
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 169  
Avg. Num. of Dwelling Units: 217  
Directional Distribution: 26% entering, 74% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.75	0.34 - 2.27	0.25

## Data Plot and Equation



# Single-Family Detached Housing (210)

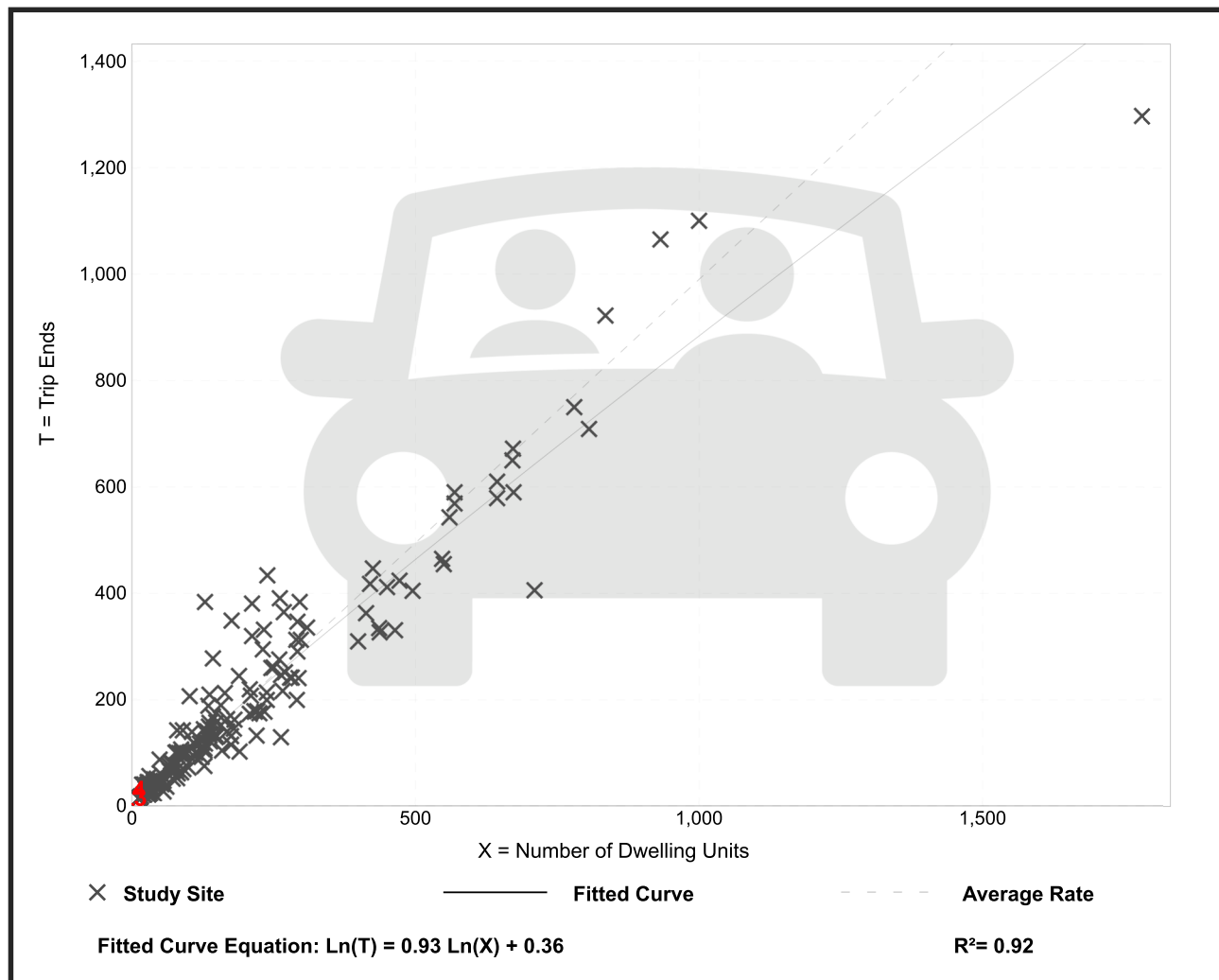
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 178  
Avg. Num. of Dwelling Units: 203  
Directional Distribution: 64% entering, 36% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.49 - 2.98	0.28

## Data Plot and Equation



# Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 174  
Avg. Num. of Dwelling Units: 246  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

## Data Plot and Equation

