Winsome Filing No. 2

Northwest Quadrant of Hodgen Road and Meridian Road
in El Paso County, CO

Traffic Compliance Memo

File No. P2410

Prepared for:

Winsome, LLC
1864 Woodmoor Drive, Suite 100
Monument, CO 80132

Prepared by:

KELLAR ENGINEERING

www.kellarengineering.com
970.219.1602 phone

COLORADO REGISTERED
SEAN K. KELLAR
38650
PROFESSIONAL ENGINEER

October 9, 2024

Sean K. Kellar, PE, PTOE

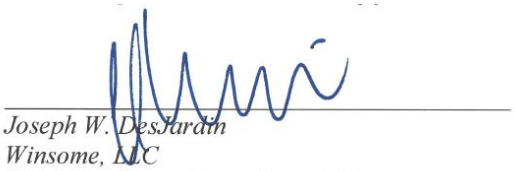
Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

Sean K. Kellar, P.E. #38560 10/9/2024
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.



Joseph W. DesJardin
Winsome, LLC
1864 Woodmoor Drive, Suite 100
Monument, CO 80132

10/9/2024
Date

1.0 Introduction

This Traffic Compliance Memo (Traffic Memo) is for the proposed single-family home located at the northwest quadrant of Hodgen Road and Meridian Road in El Paso County, CO within Winsome Filing No. 2. See Figure 1: Vicinity Map. The purpose of this Traffic Memo is to identify project traffic generation characteristics and to identify potential traffic related impacts on the adjacent street system.

Kellar Engineering LLC (KE) has prepared the Traffic Memo to document the results of anticipated traffic conditions in accordance with the governing jurisdiction's requirements. The proposed single-family home is anticipated to generate approximately 9 daily weekday trips, 1 AM total peak hour trip, and 1 PM total peak hour trip.

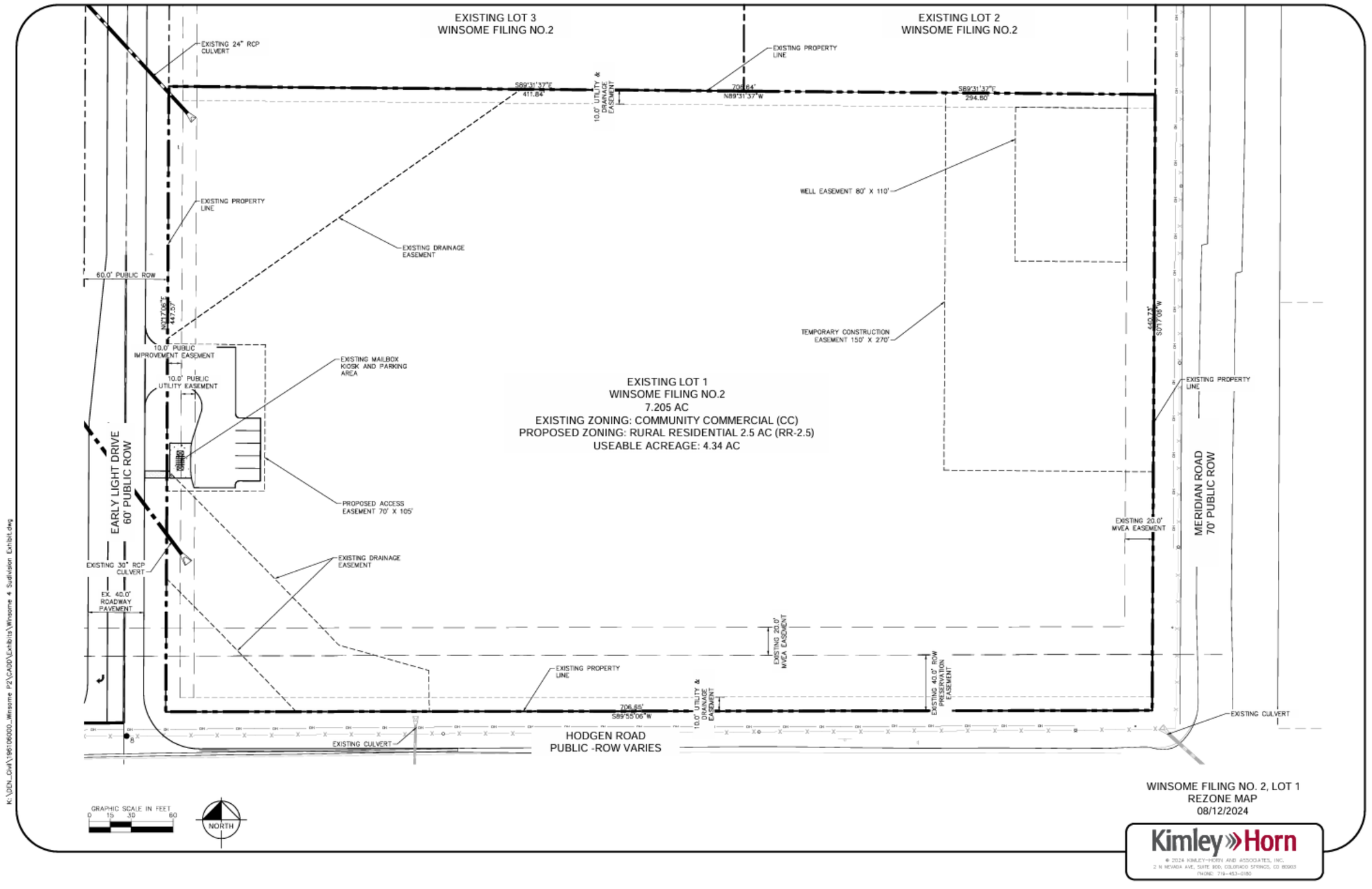
2.0 Existing Conditions and Roadway Network

The project site is located at the northwest quadrant of the intersection of Hodgen Road and Meridian Road. Hodgen Road an east-west street roadway with a posted speed of 55 mph adjacent to the project site. Hodgen Road is classified as a Rural Minor Arterial in Figure 22 of the 2045 Major Transportation Corridors Plan (MTCP). Meridian Road is a north-south roadway with a posted speed of 40 mph adjacent to the project site. Meridian Road is classified as a Rural Major Collector north of Hodgen Road in the 2045 MTCP.

Figure 1: Vicinity Map

Google Maps

Figure 2: Site Plan



3.0 Proposed Development

The proposed development consists of a single-family home. The approved Traffic Impact Study (TIS) for the subdivision, *Winsome Filing No. 2 Traffic Impact Study prepared by Kellar Engineering on June 16, 2021*, accounted for 30,000 SF of retail in this same lot of the subdivision. See Table 1 and Figure 2.

3.1 Trip Generation

Site generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Report* published by the Institute of Transportation Engineers (ITE). ITE has established trip generation rates in nationwide studies of similar land uses. For this study, KE used the *ITE 11th Edition Trip Generation Report* average trip rates. The previous study used the *ITE 9th Edition Trip Generation Report* average trip rate for ITE land use Code 826. The proposed project is anticipated to generate approximately 9 daily weekday trips, 1 AM peak hour total trip, and 1 PM peak hour total trip. Table 1 summarizes the estimated trip generation for the proposed development.

Table 1: Trip Generation (ITE Trip Generation, 11th Edition)

ITE Code	Land Use		Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
		Size	Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
	Previous Study															
826*	Retail	30.0 KSF	44.32	1,330	6.84	48%	98	52%	107	205	2.71	44%	36	56%	46	82
	Current Proposal															
210	Single-Family Housing	1 DU	9.43	9	0.70	25%	0	75%	1	1	0.94	63%	1	37%	0	1
Difference				**-1,321**			**-98**		**-106**	**-204**			**-35**		**-46**	**-81**

KSF = Thousand Square Feet
DU = Dwelling Units
* ITE Trip Generation, 9th Edition

3.2 Comparing Trip Generation

Comparing the trip generation of the current project with the trip generation of what was accounted for in the approved Traffic Impact Study (TIS) for the subdivision, *Winsome Filing No. 2 - Traffic Impact Study prepared by Kellar Engineering on June 16, 2021*. The current proposal generates less average daily trips (ADT), less AM peak hour trips, and less PM peak hour trips than the previous commercial use in the approved TIS. Therefore, in light of the above information, the trip generation of the proposed project is appropriate and the approved transportation facilities are adequate to accommodate the project's traffic. See Table 1: Trip Generation.

3.3 Site Access

The proposed access to the project site is from a full-movement access to Early Light Drive. Site access points should be taken, when available, on the roadway of lower classification as proposed with the current project. The site access and previously approved transportation facilities are appropriate and adequate to handle the project's traffic. See Figure 2: Site Plan.

4.0 Findings

This Traffic Compliance Memo (Traffic Memo) for the proposed project verifies that the project's traffic will not create a negative traffic impact upon the public streets near or adjacent to the project site.

The findings of the Traffic Memo are summarized below:

- The single-family home land use is anticipated to generate less traffic than what was previously approved for the lot. See Table 1: Trip Generation.
- The existing roadway network is sufficient to handle the project's traffic.
- The findings from the previously approved TIS for the subdivision are still valid.

APPENDIX:

Aerial Image

Land Use: 210
Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077,1078, 1079

Single-Family Detached Housing
(210)

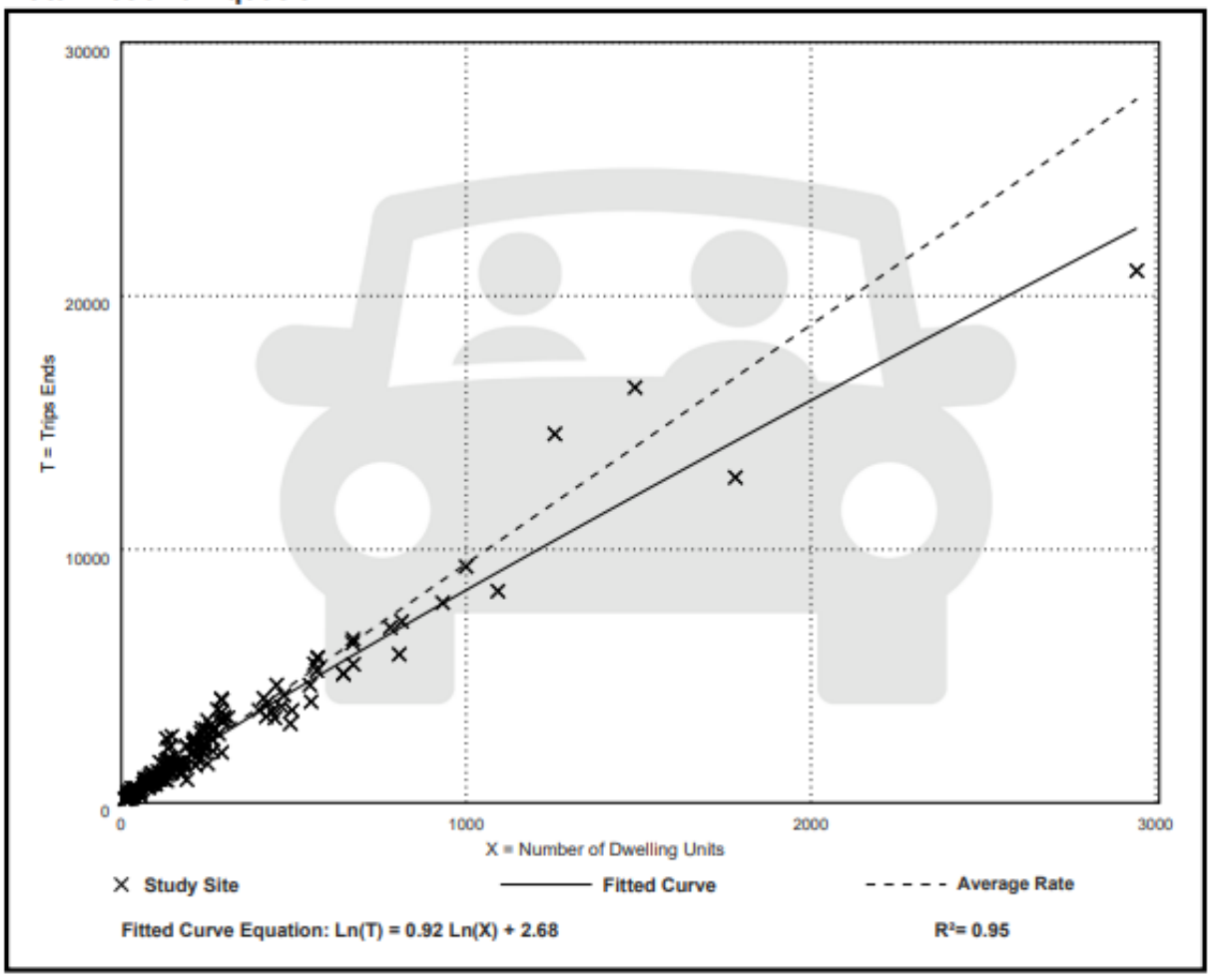
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

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



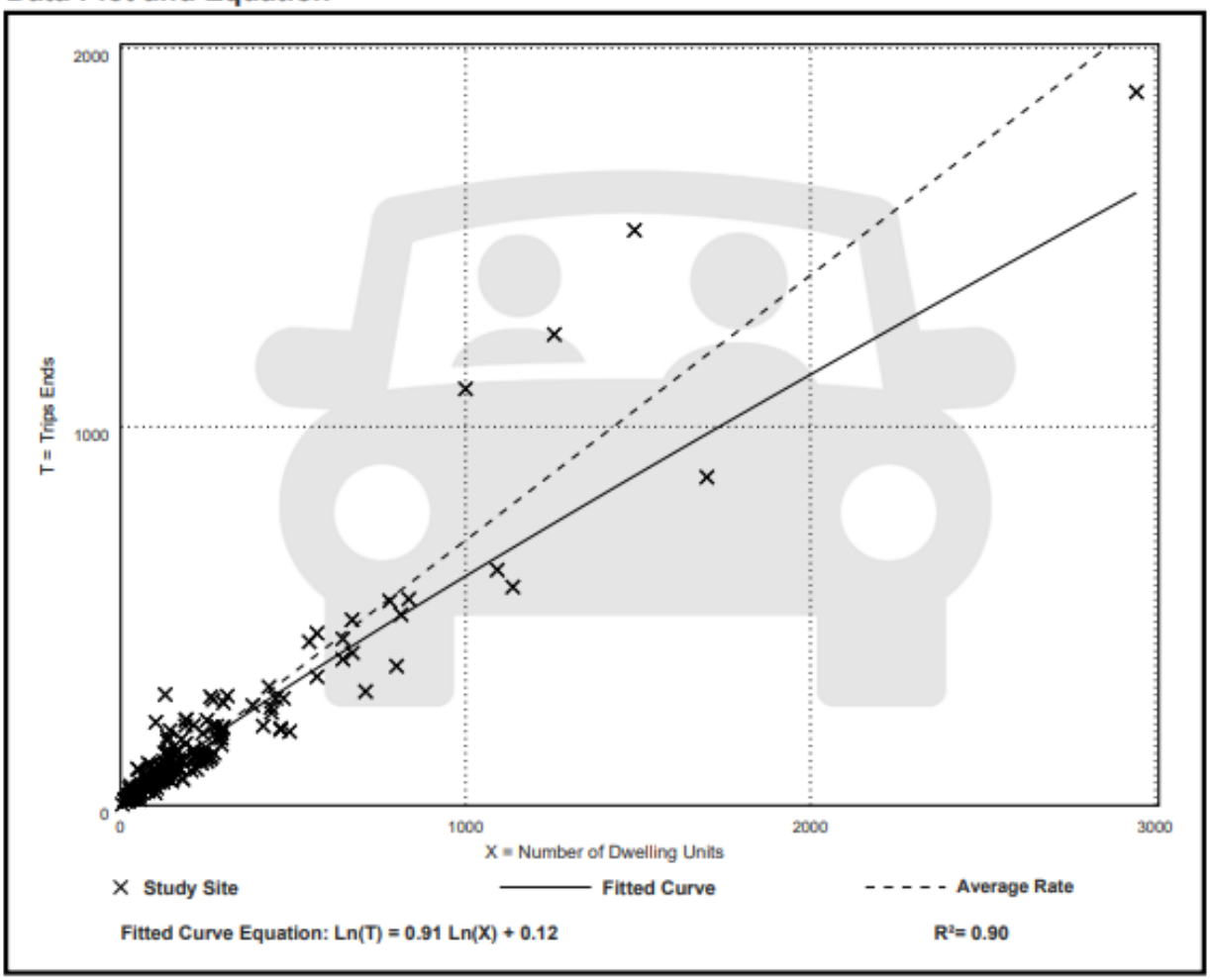
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



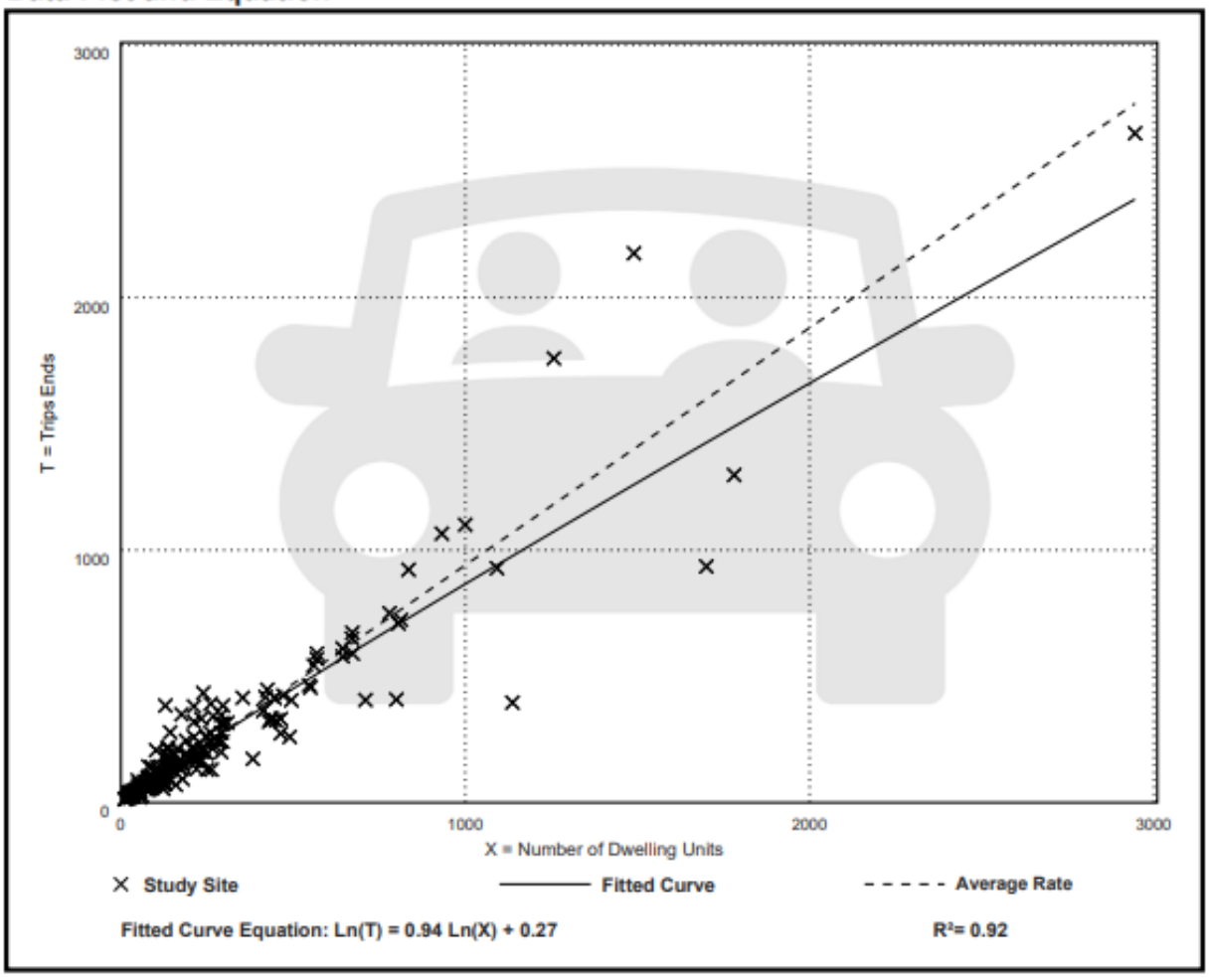
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: Dwelling Units
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: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

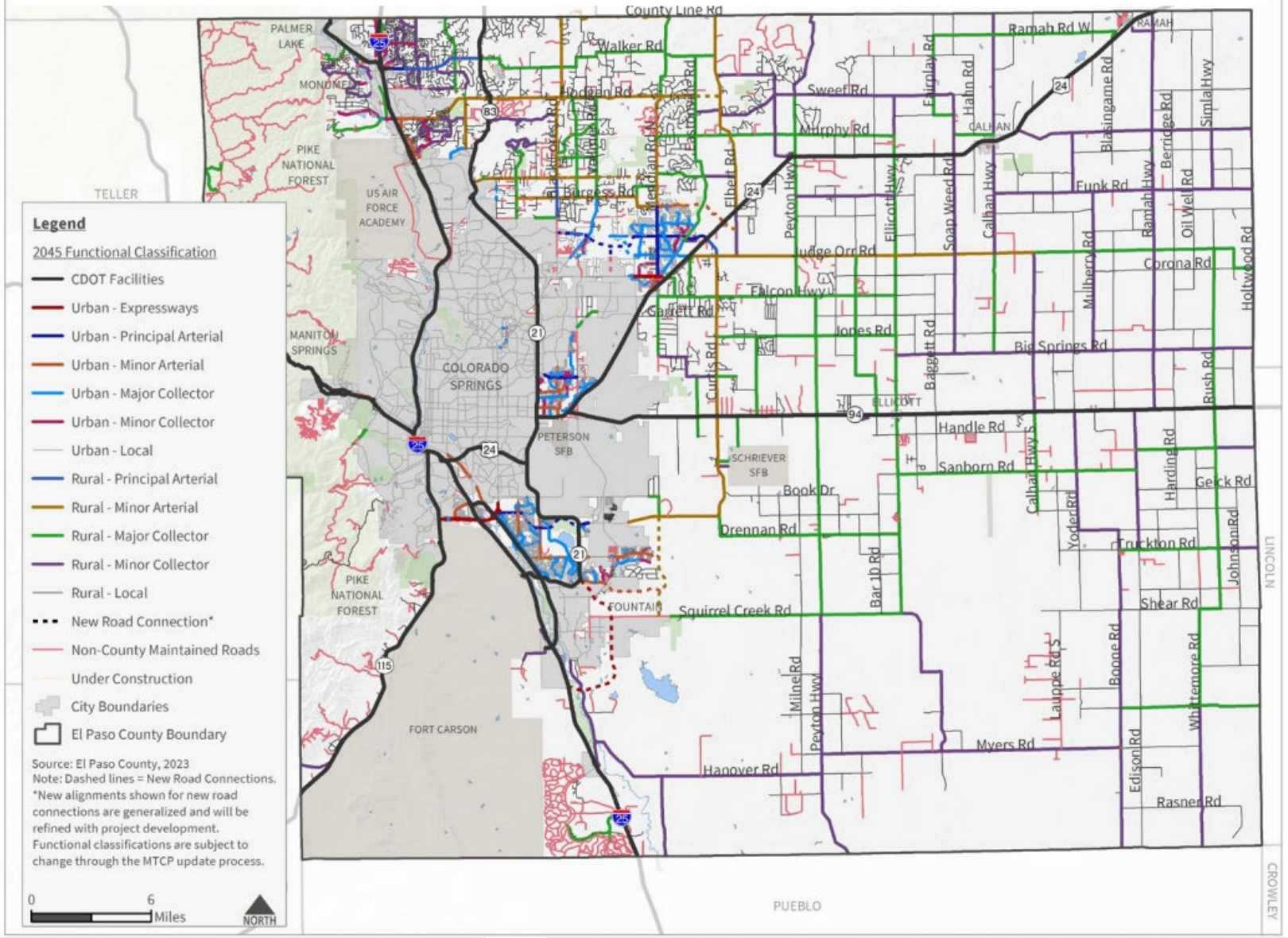
Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.94 Ln(X) + 0.27

R^2= 0.92

Figure 22. 2045 Roadway Functional Classifications



KELLAR ENGINEERING

Sean Kellar, PE, PTOE

Principal Engineer

Education
B.S., Civil Engineering, Arizona State University – Tempe, AZ

Registration
Colorado, Professional Engineer (PE)
Wyoming, Professional Engineer (PE)
Idaho, Professional Engineer (PE)
Arizona, Professional Engineer (PE)
Kansas, Professional Engineer (PE)
Missouri, Professional Engineer (PE)
Professional Traffic Operations Engineer (PTOE)

Professional Memberships
Institute of Transportation Engineers (ITE)

Industry Tenure
25 Years

Sean's wide range of expertise includes: transportation planning, traffic modeling roadway design, bike and pedestrian facilities, traffic impact studies, traffic signal warrant analysis, parking studies, corridor planning and access management. Sean's experience in both the private and public sectors; passion for safety and excellence; and strong communication and collaboration skills can bring great value to any project. Prior to starting Kellar Engineering, Sean was employed at the Missouri Department of Transportation (MoDOT) as the District Traffic Engineer for the Kansas City District. Sean also worked for the City of Loveland, CO for over 10 years as a Senior Civil Engineer supervising a division of transportation/traffic engineers. While at the City of Loveland, Sean managed several capital improvement projects, presented several projects to the City Council and Planning Commission in public hearings, and managed the revisions to the City's Street Standards. Sean is also proficient in Highway Capacity Software, Synchro, PT Vissim, Rodel, GIS, and AutoCAD.

WORK EXPERIENCE:

Kellar Engineering, Principal Engineer/President – January 2016 – Present

Missouri Department of Transportation, District Traffic Engineer, Kansas City District – June 2015 – January 2016

City of Loveland, Colorado, Senior Civil Engineer, Public Works Department – February 2005 – June 2015

Kirkham Michael Consulting Engineers, Project Manager - February 2004 – February 2005

Dibble and Associates Consulting Engineers, Project Engineer – August 1999 – February 2004