

O'Reilly Auto Parts, Parker, CO

Traffic Memo

KE Job #2025-018

Prepared for:

TAIT & ASSOCIATES, INC
320 North Lincoln Ave
Loveland, CO 80537

Prepared by:



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April 18, 2025

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1.0 Introduction

This Traffic Compliance Memo (Traffic Memo) is for the proposed O'Reilly Auto Parts Store project located at the southeast quadrant of Stroh Rd and S Parker Rd in Parker, CO. 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.

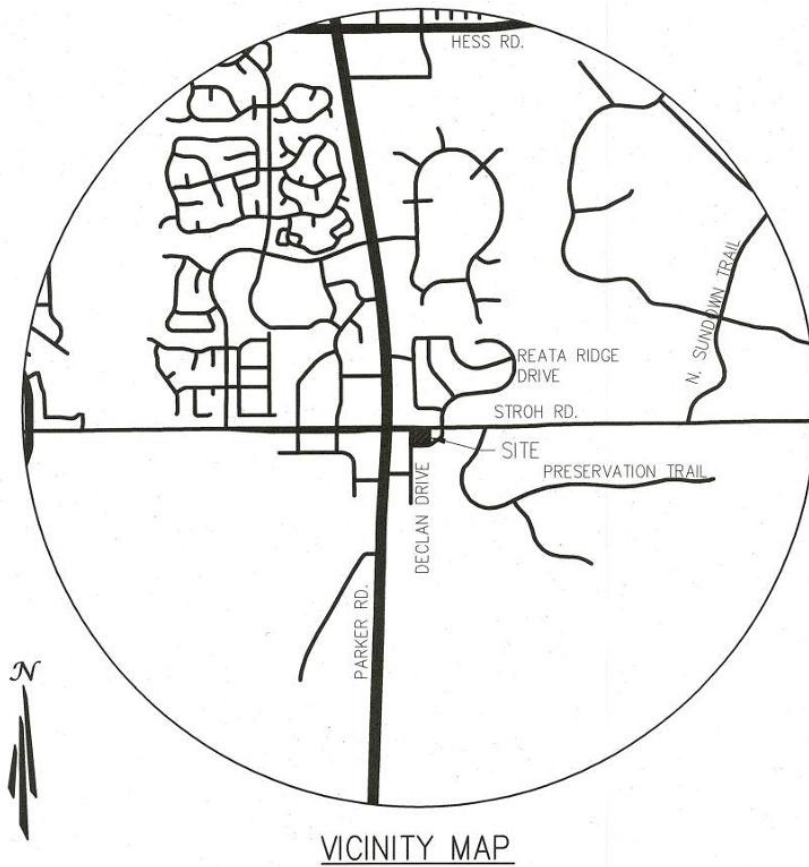
Kellar Engineering LLC (KE) has prepared the Traffic Memo to document the results of anticipated traffic conditions in accordance with the governing jurisdiction's requirements. The proposed project is anticipated to generate approximately 437 daily weekday trips, 20 AM total peak hour trips, and 39 PM total peak hour trips.

2.0 Existing Conditions and Roadway Network

The project site is located at the southeast quadrant of Stroh Rd and S Parker Rd in Parker, CO. Stroh Rd is a three-lane (two westbound through lanes, one eastbound through lane) east-west roadway with a posted speed of 30 mph adjacent to the project site. To the east of the project site Stroh Rd turns into a two-lane roadway and to the west of the project site Stroh Rd turns into a four-lane roadway. S Parker Rd is a six-lane north-south arterial roadway with a posted speed of 55 mph. See Figure 2: Site Plan.

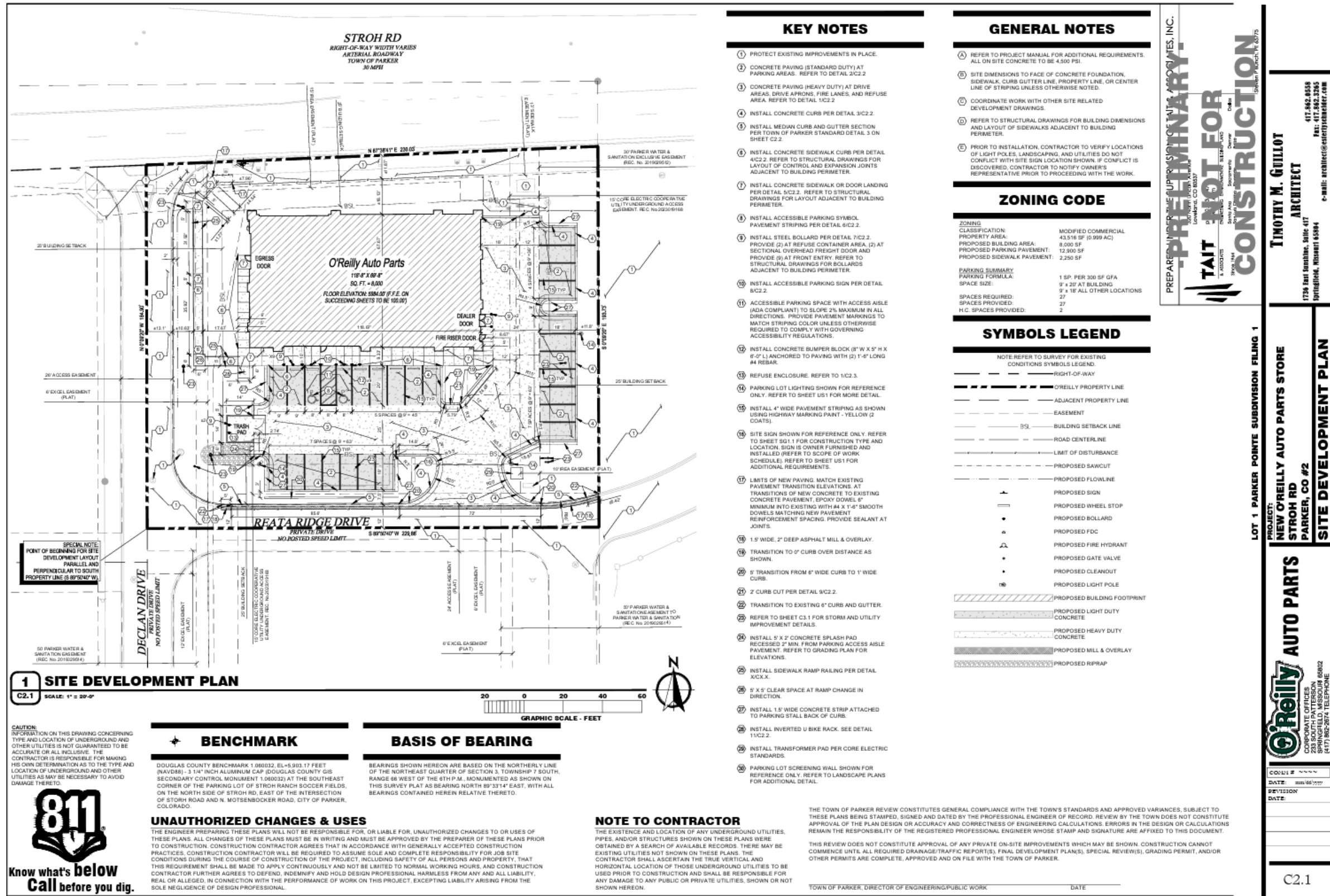


Figure 1: Vicinity Map



VICINITY MAP

Figure 2: Site Plan (For reference only. Provided by Civil Engineer. See Civil Drawings for more information)





3.0 Proposed Development

The proposed development consists of an 8,000 SF automobile parts store. See Table 1: Trip Generation and Figure 2: Site Plan.

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 proposed project is anticipated to generate approximately 437 daily weekday trips, 20 AM peak hour total trips, and 39 PM peak hour total trips. Table 1 summarizes the estimated trip generation for the proposed development.

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

ITE Code	Land Use	Size	Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
843	Automobile Parts Sales	8.00 KSF	54.57	437	2.51	55%	11	45%	9	20	4.90	48%	19	52%	20	39
Total				437			11		9	20			19		20	39

KSF = Thousand Square Feet

Table 2: Trip Generation Comparison

ITE Code	Land Use	Size	Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
	Approved Study															
*	Shopping Center	*	*	2,989	*	*	42	*	26	68	*	*	125	*	135	260
	Current Proposal															
843	Automobile Parts Sales	8.00 KSF	54.57	437	2.51	55%	11	45%	9	20	4.90	48%	19	52%	20	39
Difference				2,552			31		17	48			106		115	221

KSF = Thousand Square Feet

* SEC Stroh Road/Parker Road Transportation Impact Study (TIS) prepared by Aldridge Transportation Consultants, LLC – April 11, 2019



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, *SEC Stroh Road/Parker Road Transportation Impact Study (TIS) prepared by Aldridge Transportation Consultants, LLC – April 11, 2019*. The current proposal generates less average daily trips (ADT), less AM peak hour trips, and less PM peak hour trips than what was accounted for in the approved TIS. Therefore, in light of the above information, the trip generation of the proposed project is in compliance with the previously approved TIS for the subdivision, and the approved and planned transportation facilities are adequate to accommodate the project's traffic. See Table 2: Trip Generation Comparison.

3.3 Site Access

Access to the project site is from a full-movement access to an internal private drive that connects to Stroh Rd. Site Access points should be taken, when available on the roadway of lower classification as is proposed with the current project. Therefore, the proposed site access is appropriate. 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 the project site.

The findings of the Traffic Memo are summarized below:

- The proposed project is anticipated to generate approximately 437 daily weekday trips, 20 AM peak hour total trips, and 39 PM peak hour total trips.
- The existing roadway network is sufficient to handle the project's traffic.
- The findings from the previously approved TIS for the subdivision (*SEC Stroh Road/Parker Road Transportation Impact Study (TIS) prepared by Aldridge Transportation Consultants, LLC – April 11, 2019*) are still valid.



APPENDIX:



Aerial Image



Land Use: 843 Automobile Parts Sales

Description

An automobile parts sales facility specializes in the sale of automobile parts for maintenance and repair. The facilities within this land use are not typically equipped for on-site vehicle repair. Tire store (Land Use 848), tire superstore (Land Use 849), and automobile parts and service center (Land Use 943) are related uses.

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/>).

The sites were surveyed in the 1990s, the 2000s, and the 2010s in Alberta (CAN), Florida, Montana, New Hampshire, Texas, and Wisconsin.

Source Numbers

436, 439, 618, 881, 882, 959, 975, 1047

Automobile Parts Sales (843)

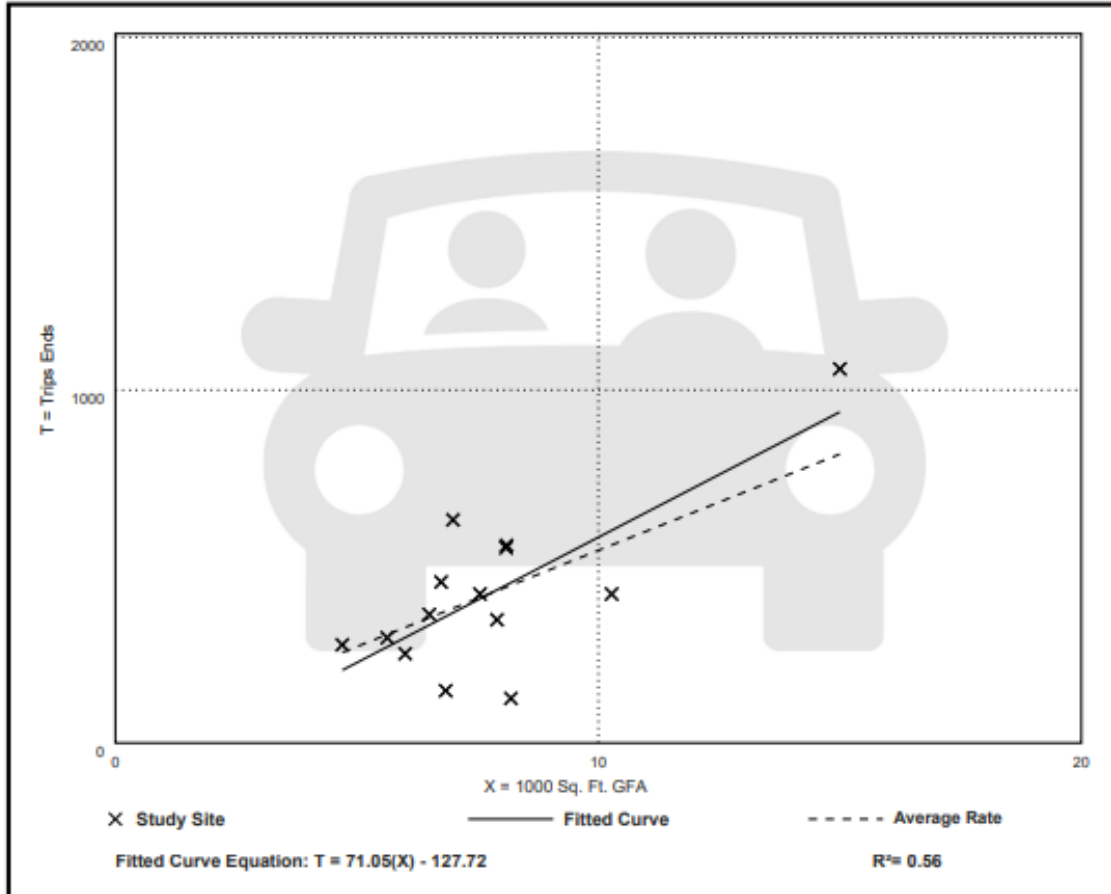
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 14
Avg. 1000 Sq. Ft. GFA: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
54.57	15.38 - 90.41	20.19

Data Plot and Equation



Automobile Parts Sales (843)

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: 14

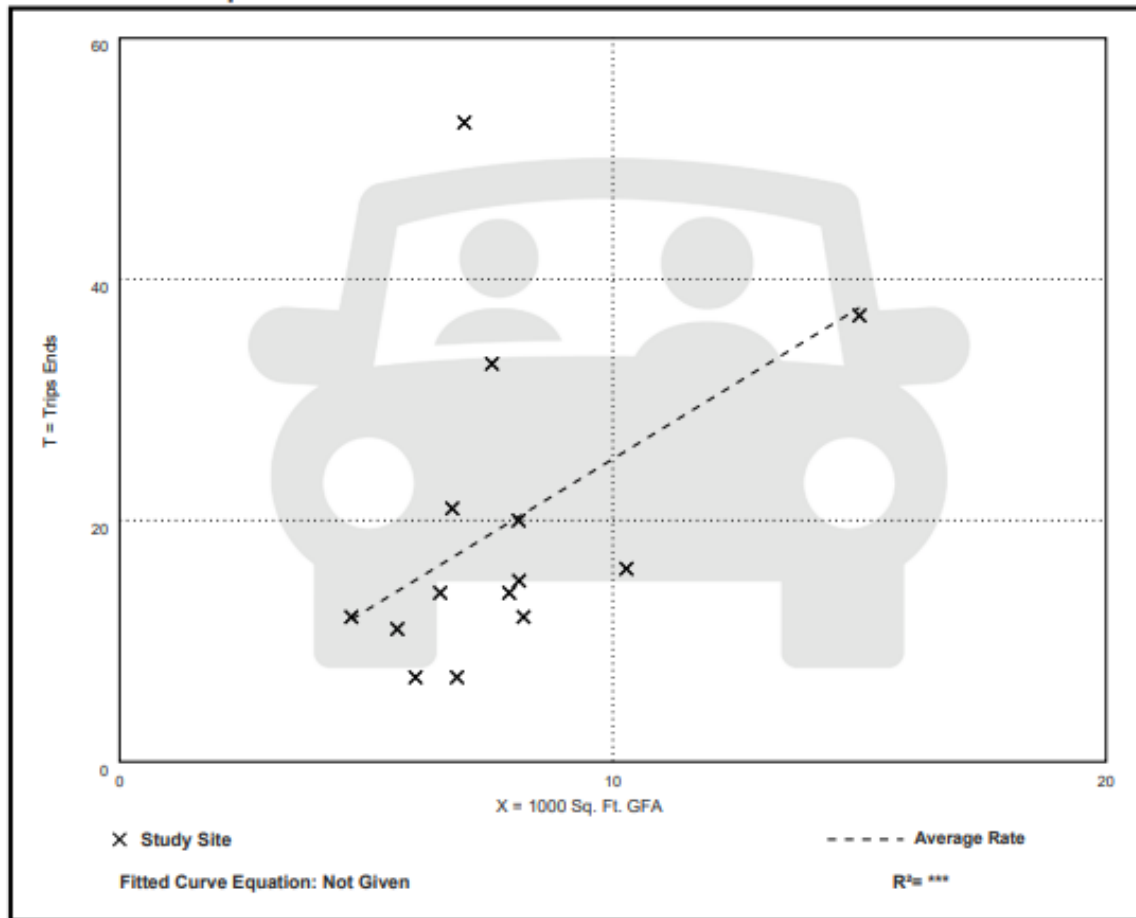
Avg. 1000 Sq. Ft. GFA: 8

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.51	1.02 - 7.58	1.62

Data Plot and Equation



Automobile Parts Sales (843)

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: 16

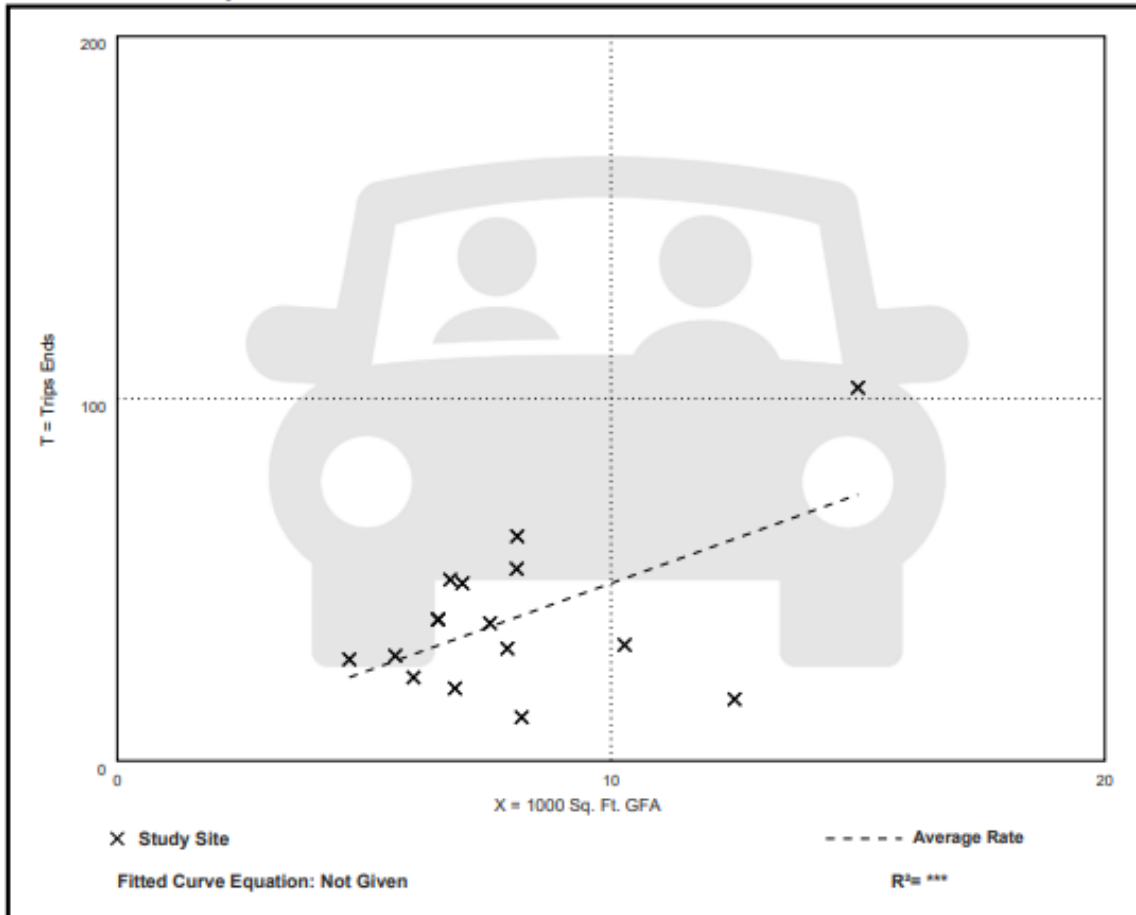
Avg. 1000 Sq. Ft. GFA: 8

Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.90	1.36 - 7.65	2.17

Data Plot and Equation





Sean Kellar, PE, PTOE

Principal Engineer

Education

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

Registration

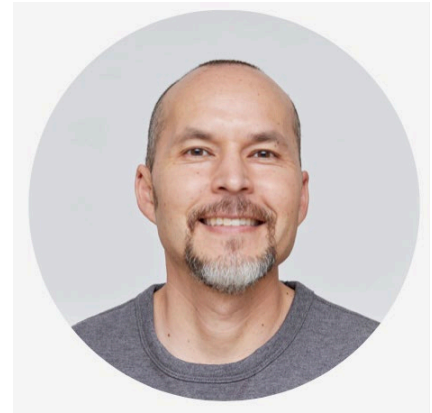
Colorado, Professional Engineer (PE)
Wyoming, Professional Engineer (PE)
Idaho, Professional Engineer (PE)
Arizona, Professional Engineer (PE)
Kansas, Professional Engineer (PE)
Missouri, Professional Engineer (PE)
Professional Traffic Operations Engineer (PTOE)

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