Public Works Traffic Analysis Comments

Date: 10-23-2024

Subject: Smash Padel Club Doral Trip Generation

Permit: PLAN-2410-0090

Date Submitted: 10-04-2024

1st Review

Results of the Review:

[X] **Approval Recommended**

Doral Public Works Department has completed its review of the Trip Generation Memorandum as prepared by Beacon Traffic Consulting, Inc. for interior remodeling for the proposed Padel Club located at 8080 NW 58th St in Doral, Florida. At this time, the applicant is proposing to develop 7 indoor padel/tennis courts. The existing land use is Warehousing. The Public Works Department recommends approval.

Advisory comments below are necessary during site plan review process and implementation of the project:

- Approval is subject to review from City of Doral Public Works Department - Plans Review.
- Compliance with the applicable sections of the City's Land Development Code Chapter 77.
- Implementation of the proposed project dealing with roadway construction work, installation of signage, pavement markings and other needed items shall conform to all applicable requirements, standards and regulations of the latest version of the Manual on Uniform Traffic Control Devices (MUTCD), City of Doral, Miami-Dade County Department of Transportation and Public Works, and Miami-Dade Fire Rescue Department.

September 10, 2024

Ariana Mora
8080 NW 58th Street
Doral, Florida 33166

Subject: Trip Generation Memorandum – Smash Padel Club Doral

Dear Ms. Mora,

Per your request, Beacon Traffic Consulting, Inc., conducted a Traffic Generation Comparison Memorandum for the proposed 36,612 Sq. Ft of assembly (7 indoor padel/tennis courts) planned to be located at 8080 NW 58th Street in the City of Doral, Florida. **Figure 1** shows the location of the proposed project.

Project Information:

- Address: 8080 NW 58th Street, Doral, FL 33166
- Folio Number: 35-3022-000-0150
- Current Land Use: 4837 Warehouse Terminal or STG: Warehouse or Storage
- Proposed Land Use: Assembly Group A-3 and Group B.
- Warehouse Area: 36,612 Sq. Ft. Existing
- Office Area: 3,367 Sq. Ft. Existing
- Year Built: 1973

Existing Land Use:

The existing land use is a warehouse that consists of 36,612 square feet.

Proposed Land Use:

The proposed land use consists of 36,612 sq ft of assembly with seven (7) indoor padel/tennis courts that will operate Monday to Sunday from 7:00 am to 11:00 pm. Access to the site will be served by two (2) access driveways. One driveway on NW 58th Street will serve the office and another driveway on NW 82nd Avenue that is the main access driveway to the padel/tennis courts. A copy of the site plan is included in **Attachment A**.

Figure 1 – Location Map

Trip Generation Analysis

A trip generation analysis was performed using the trip generation equations/rates published in the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition. The most appropriate land use category for the existing land use is Warehousing (Land Use Code 150) and for the proposed land use is Racquet/Tennis Club (Land Use Code 491). A trip generation analysis comparison was conducted for daily, AM, and PM peak hour conditions. The trip generation equations/rates can be found in **Attachment B**.

The results of the trip generation analyses are documented in **Table 1**.

Table 1: Trip Generation Analyses

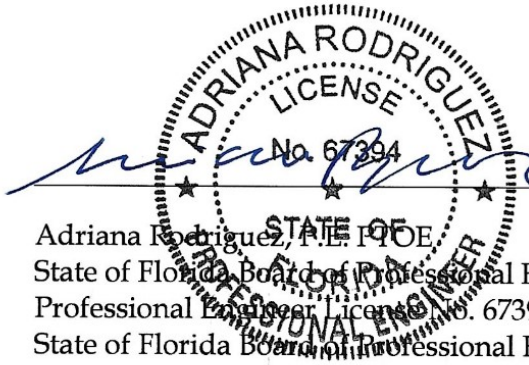
ITE Analysis[1]			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Description	Unit	Total	In	Out	Total	In	Out	Total
Existing LUC 150	*Warehousing*	36,612 Sq. ft.	96 [2]	22	6	28 [2]	9	22	31 [2]
Proposed LUC 491	*Racquet/Tennis Club*	7 Courts	194 [3]	n/a [4]	n/a [4]	n/a [4]	14	13	27 [3]
Net new trips (proposed minus existing)			98	-	-	-	5	-9	-4

Notes:
1) Source: ITE Trip Generation Manual - 11th Edition.
2) The fitted curve equations were used.
3) Average rates were used.
4) ITE Trip Generation Manual - 11th Edition does not provide rates/equations for the AM Peak Hour

As documented in Table 1, the proposed development is projected to generate approximately 98 new daily trips and negative (-4) new PM peak hour trips (5 inbound and -9 outbound). Please note that the ITE Trip Generation Manual does not provide rates/equations for LUC 491's AM peak hour trips. Therefore, no calculations are provided for the AM peak hour trips.

Please do not hesitate to contact me if you have any questions or comments regarding this Trip Generation memorandum.

Sincerely,



9/10/2024

Adriana Rodriguez, P.E. PTOE
State of Florida Board of Professional Engineers,
Professional Engineer License No. 67394
State of Florida Board of Professional Engineers
Certificate of Authorization No.31928

Attachment A

Site Plan

PROJECT NOTES

- All dimensions to be field verified by contractor.
- Threshold change in levels shall be between |" Min. and ½" Max. HT for ½" Ht shall be beveled w/ sloped no steeper than 1:2
- G.C. to post at the main entrance building the maximum occupancy allowed for each area.
- Glass to be safety glass cat-II
- All door in means of egress to be equipped with locking an latching hardware that does not req. a key, tool or special knowledge or effort from egress side. all door hardware must comply with nfpa 101:7:2:1:6
- Door in fire barrier and smoke barrier to be provide w/self closing or automatic closing device ffpc 101:7.2.1.8
- All doors in exit passageway, exit discharge, and exit stairway shall identified by tactile sign complying with sect. 703.1 703.2 and 705.5 of ada 2014 and florida accessibility code 2014.
- Accessible toilet room to be identified with international symbol of accessibility and comply w/ FAC'14 section 703.7, 703.7.1 & 703.7.2.1
- Metals stud at this wall to be 20 Gauge, provide backing reinforcing.
- Metal racks. G.C. to submit city revision shop drawing.
- G.C. shall field verify all existing conditions prior to start any work.
- Any firewall penetration/opening shall be protected by proper "UL" listed assembly.
- Firewalls shall be labeled above ceiling as per FFPC NFPA 1.
- General Contractor shall verify firewalls and repair as needed, providing the respective "UL" listed fire separation assembly.
- All Doors hardware to be equipped w/ lever type hardware as per the requirements of FAC'14 section 404.2.7
- Doors in means of egress, and its hardware, shall comply with FFPC NFPA-101 7.2.1.

NOTE

- EGRESS DOORS MUST BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. F.B.C 1008.1.8

- DOOR MUST BE OPERABLE WITH NOT MORE THAN ONE RELEASING OPERATION. F.B.C 1008.1.8.2

- ALL EXTERIOR & BATHROOM DOORS SHALL BE EQUIPPED WITH A SELF CLOSER.

- ALL EXIT DOORS SHALL BE EQUIPPED WITH PANIC HARDWARE.

NOTE:

ALTERATION LEVEL SHALL BE LEVEL TWO,
AS PER F.B.C.2023 EC.404.1 (EXIST. BUILDING)

THIS PLAN COMPLIES WITH THE F.B.C. 2023 8th EDITION .

FIXTURES CALCULATIONS

(TABLES 403.1 F.B.C.)

	REQUIRED		PROVIDED
	MALE	FEMALE	
WATER CLOSETS	1 PER 40		4 W/C
LAVATORIES	1 PER 40		4
DRINKING FOUNTAIN	1/500		1
SERVICE SINK	1		1

OCCUPANT LOAD CALCULATION

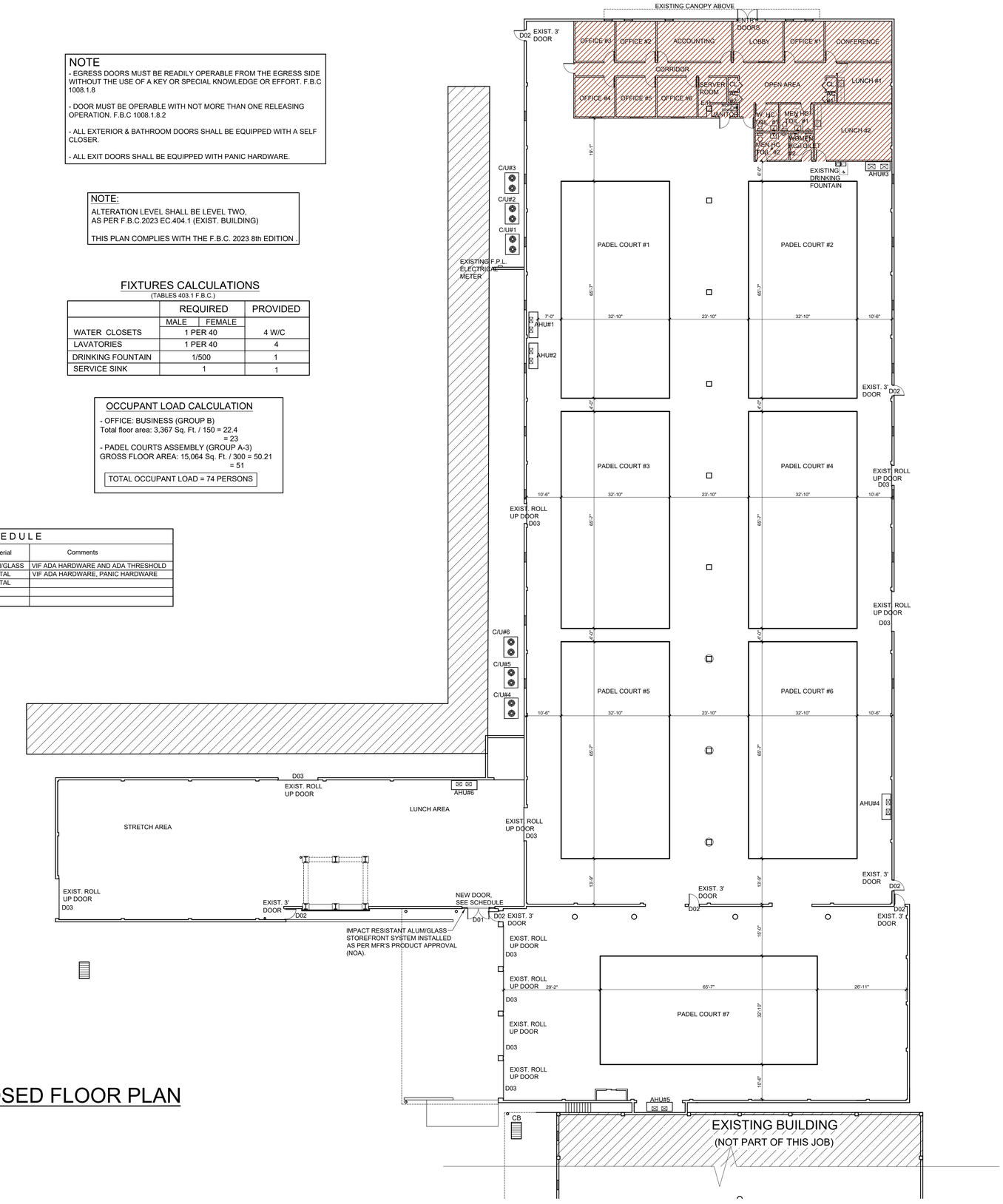
- OFFICE: BUSINESS (GROUP B)
Total floor area: 3,367 Sq. Ft. / 150 = 22.4
= 23
- PADEL COURTS ASSEMBLY (GROUP A-3)
GROSS FLOOR AREA: 15,064 Sq. Ft. / 300 = 50.21
= 51

TOTAL OCCUPANT LOAD = 74 PERSONS

DOOR SCHEDULE

Door Number	Description	Width	Height	Material	Comments
D01**	NEW ENTRY DOOR	3' - 0"	7' - 0"	ALUMIN/GLASS	VIF ADA HARDWARE AND ADA THRESHOLD
D02**	EXISTING SERVICE DOOR	3' - 0"	7' - 0"	METAL	VIF ADA HARDWARE, PANIC HARDWARE
D03	EXIST. METAL O.H. DOOR	10' - 0"	8' - 0"	METAL	

** NOTE:
ALL EXIT DOORS SHALL HAVE PANIC HARDWARE.



N

PROPOSED FLOOR PLAN

SCALE 1/16" = 1'-0"

OSCAR POSADA

ARCHITECT
AR 0016550

9231 SW 12 ST.
Miami Fl. 33174
305-554 1094
786-6835155
Fax: 305-5541134
ARENCO@AOL.COM

No.	REVISION

Project Name:
Change of Use for:
Smash Padel Club Doral

Project Location:
8080 NW 58th St.
Doral, FL 33166

Drawn by	E.L.
Date	08-03-24
Scale	AS SHOWN

Title:

PROPOSED FLOOR PLAN

Sheet: A-2

Glory only to God

Attachment B

ITE Trip Generation Equations/Rates

Land Use: 150
Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) 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 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

Warehousing
(150)

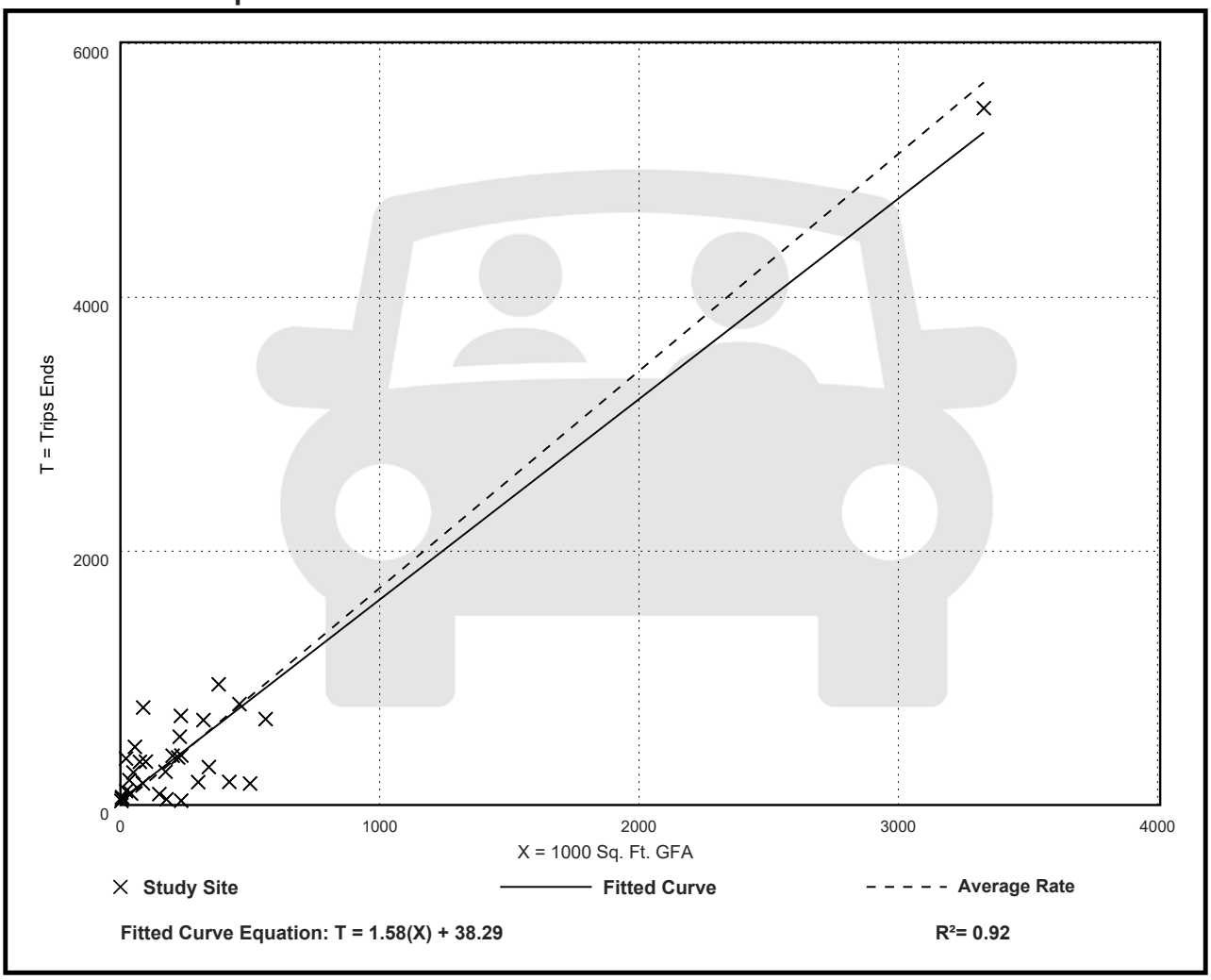
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 292
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



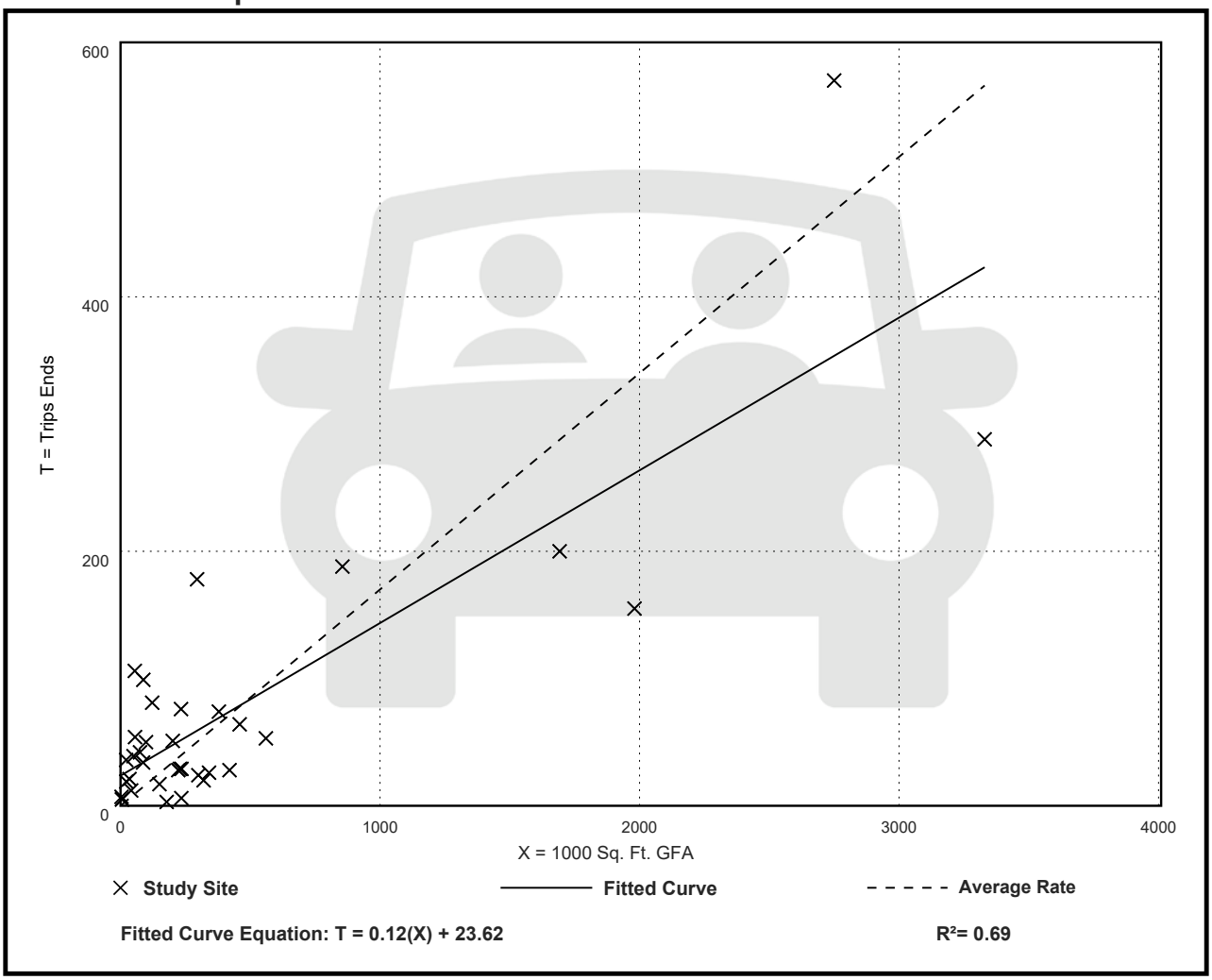
Warehousing
(150)

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: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 23.62

R^2= 0.69

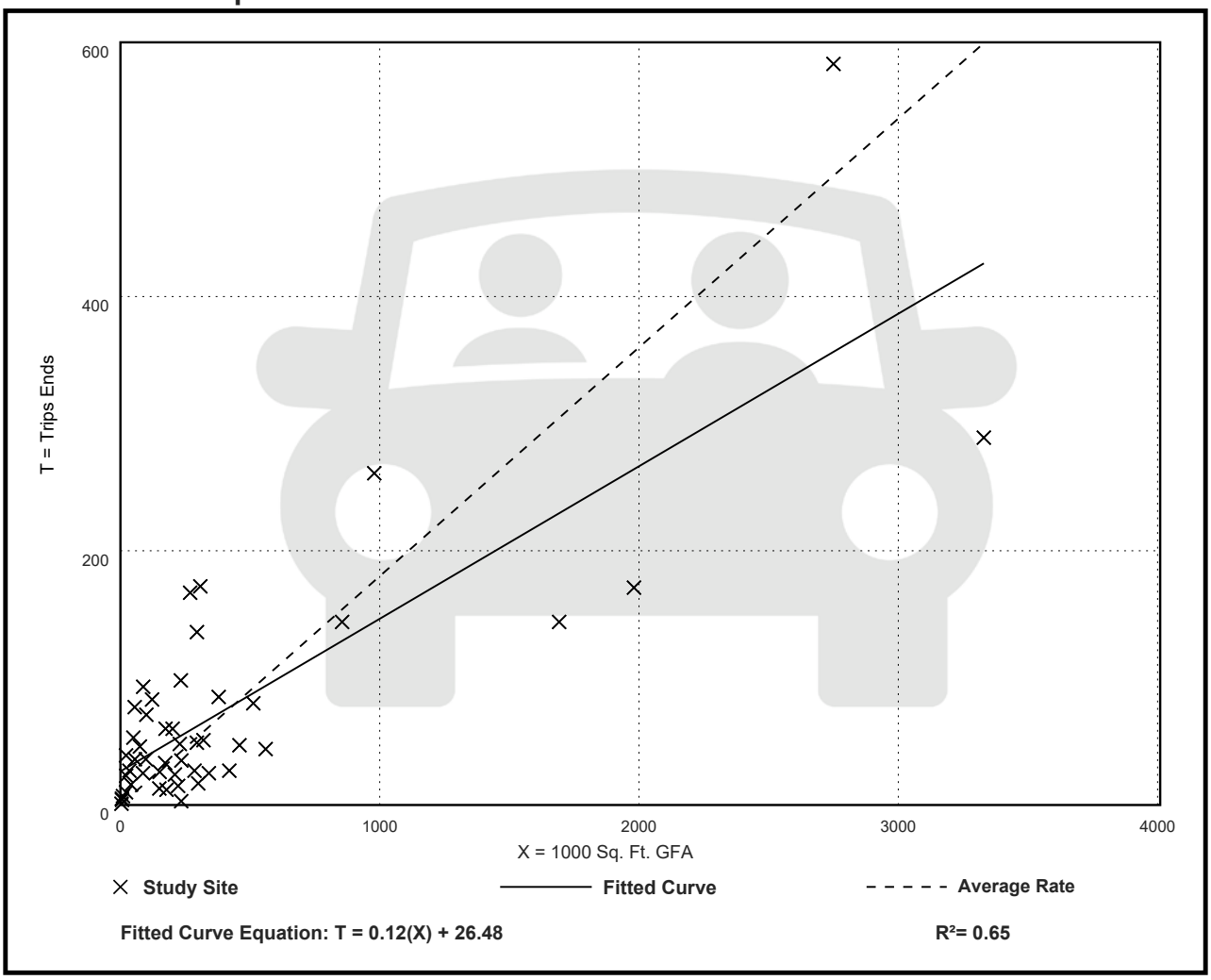
Warehousing
(150)

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: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 26.48

R^2= 0.65

Warehousing
(150)

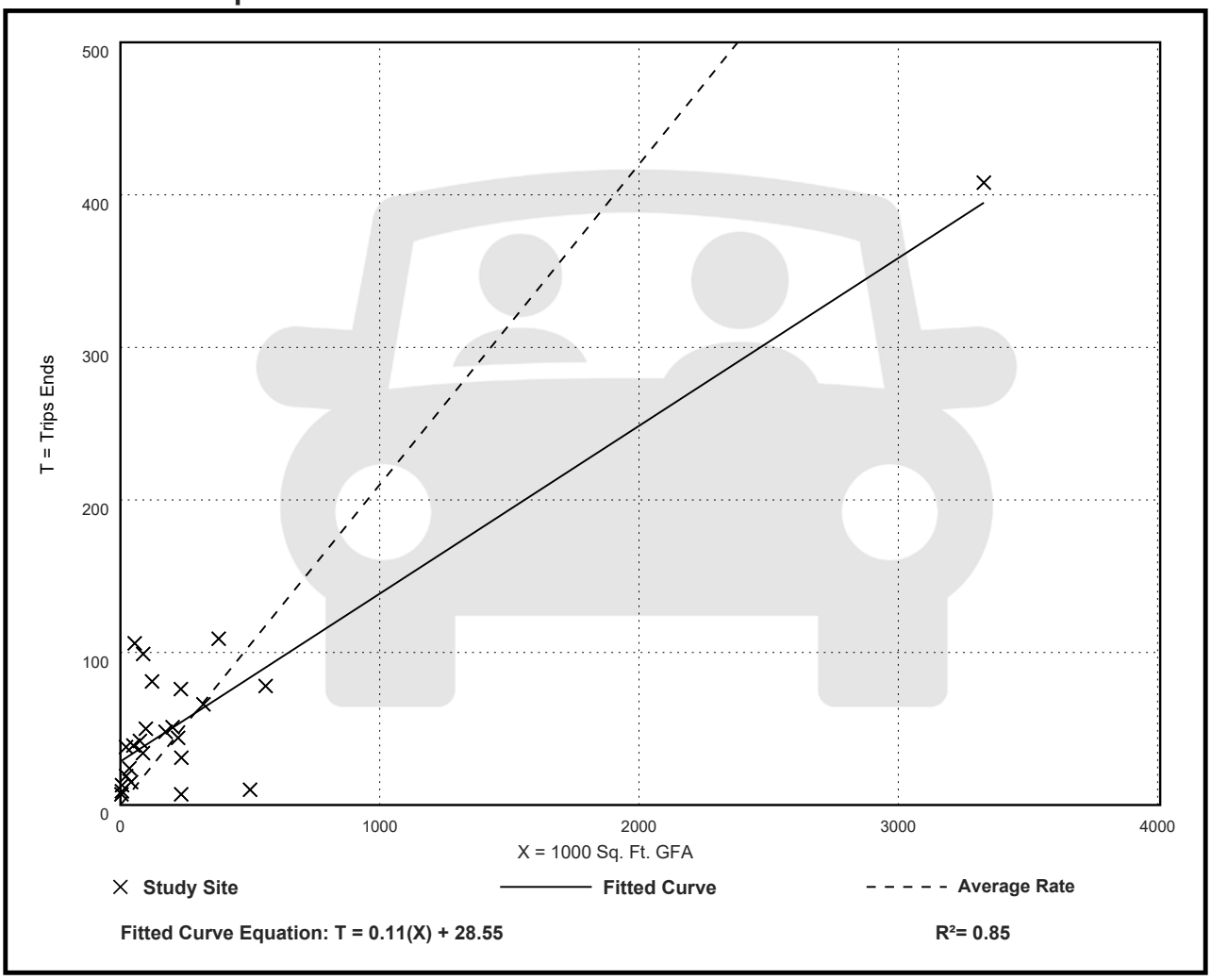
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GFA: 284
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.21	0.02 - 2.08	0.26

Data Plot and Equation



Warehousing
(150)

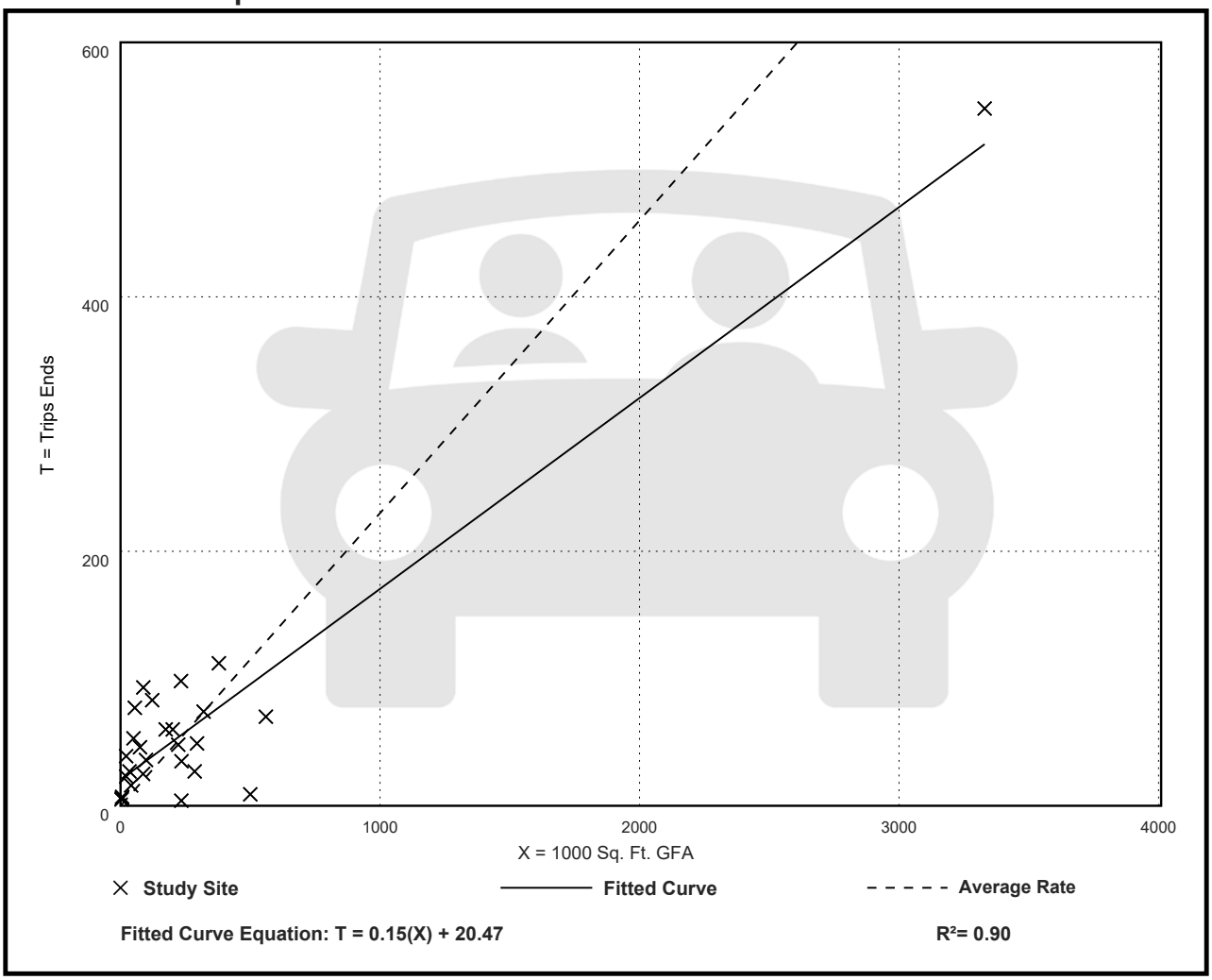
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 27
Avg. 1000 Sq. Ft. GFA: 284
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.23	0.02 - 1.80	0.23

Data Plot and Equation



Fitted Curve Equation: T = 0.15(X) + 20.47

R^2= 0.90

Warehousing
(150)

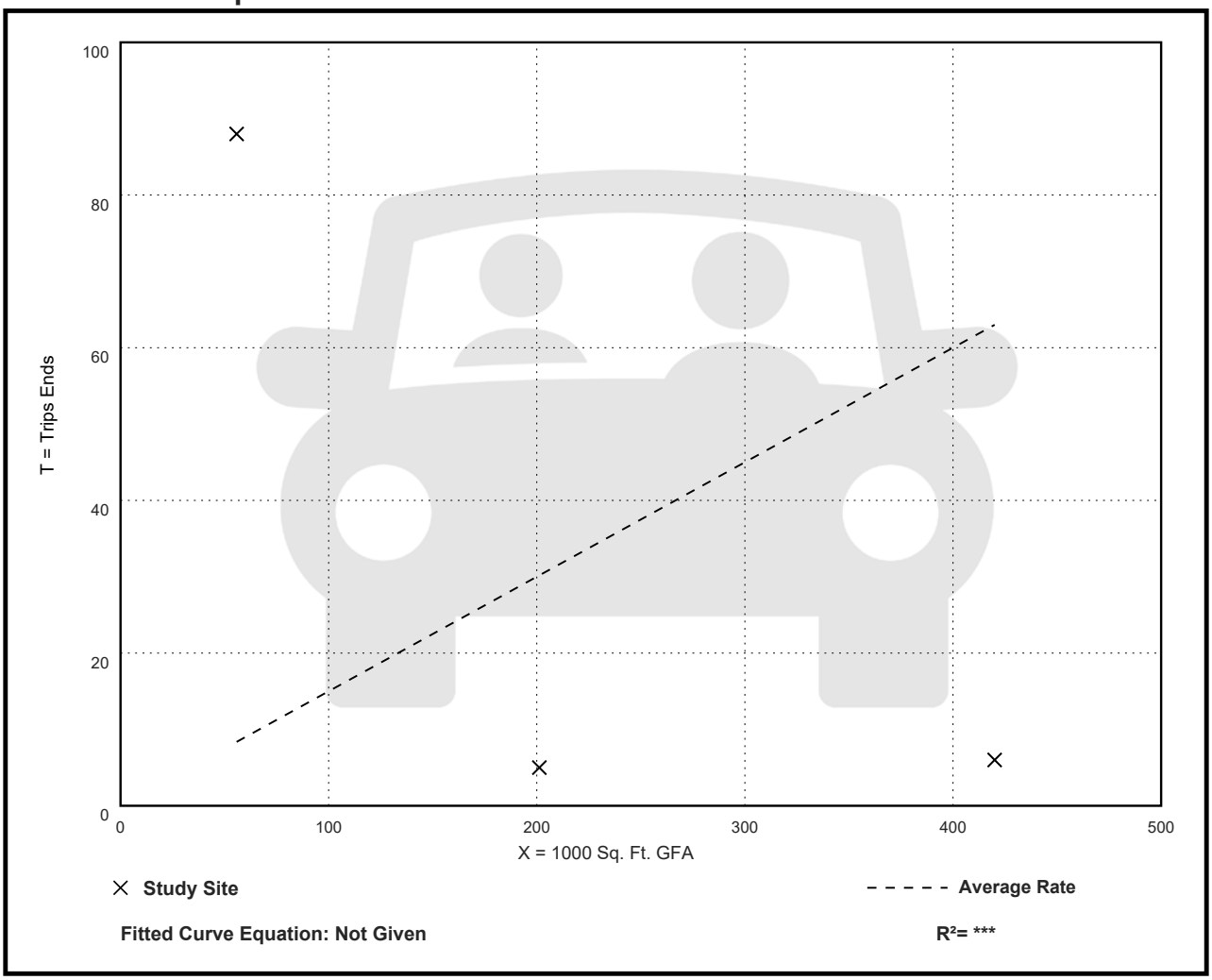
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 226
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.58	0.53

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

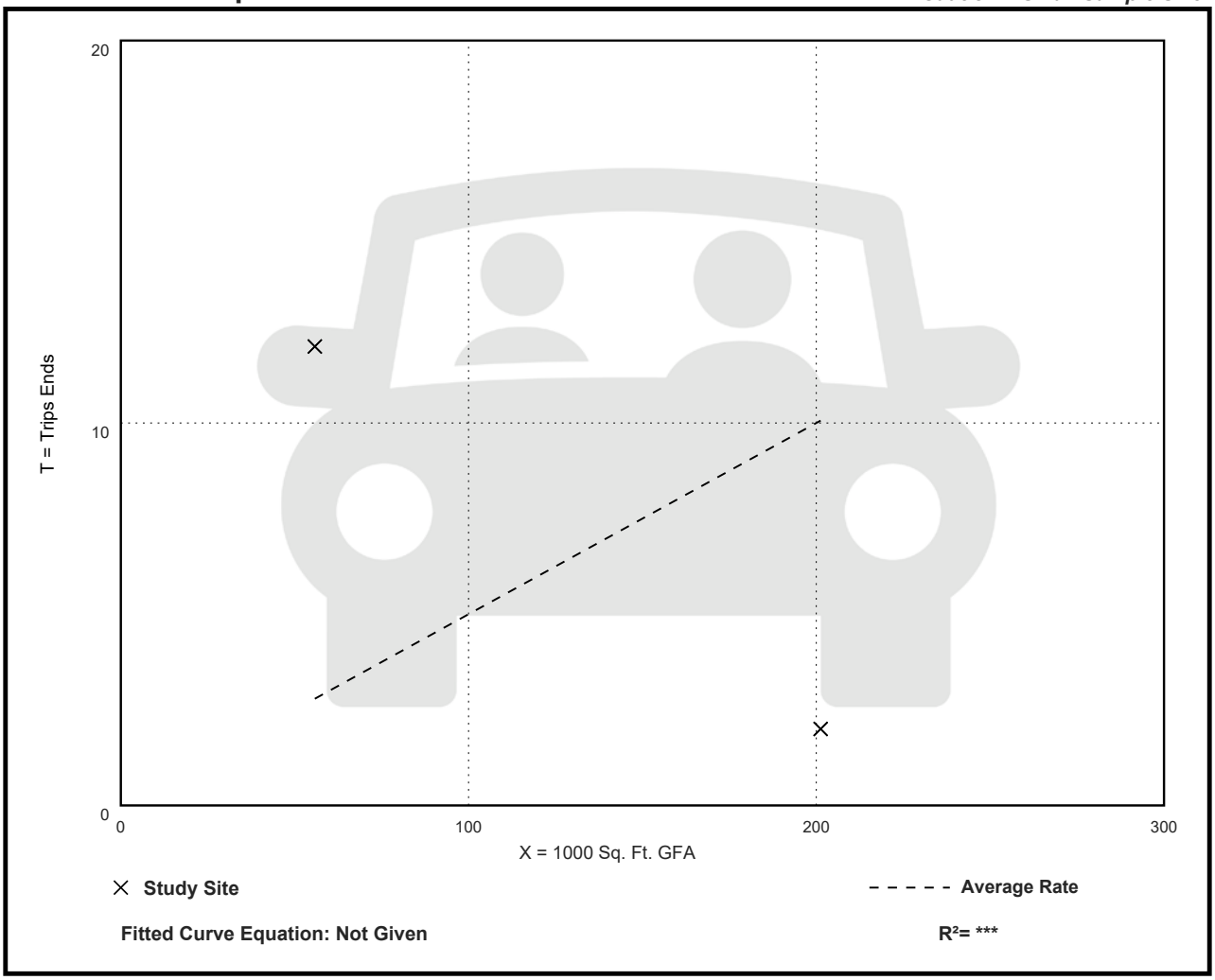
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 129
Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	***

Data Plot and Equation

Caution – Small Sample Size



Warehousing
(150)

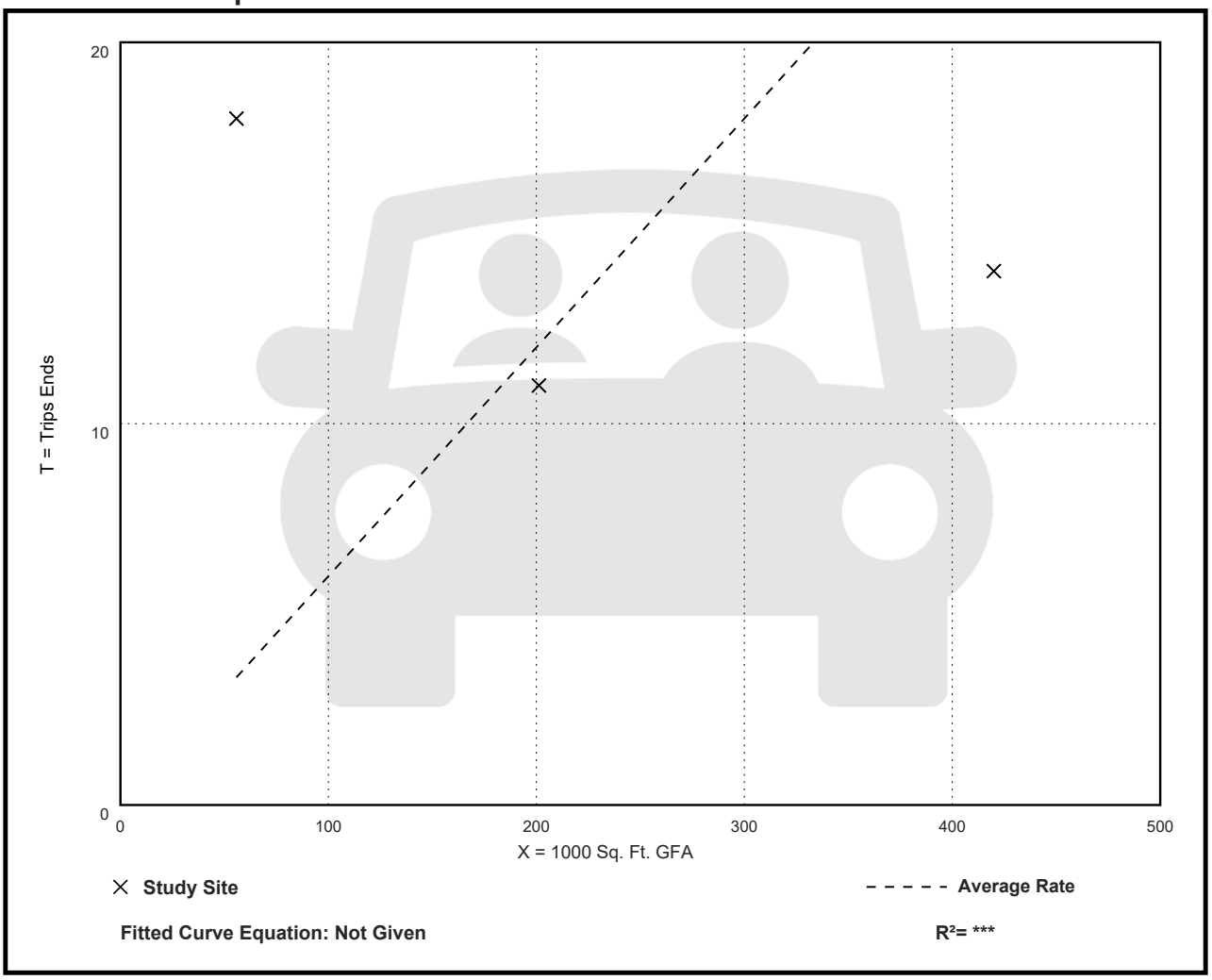
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 226
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.06	0.03 - 0.32	0.10

Data Plot and Equation



Warehousing
(150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Sunday, Peak Hour of Generator

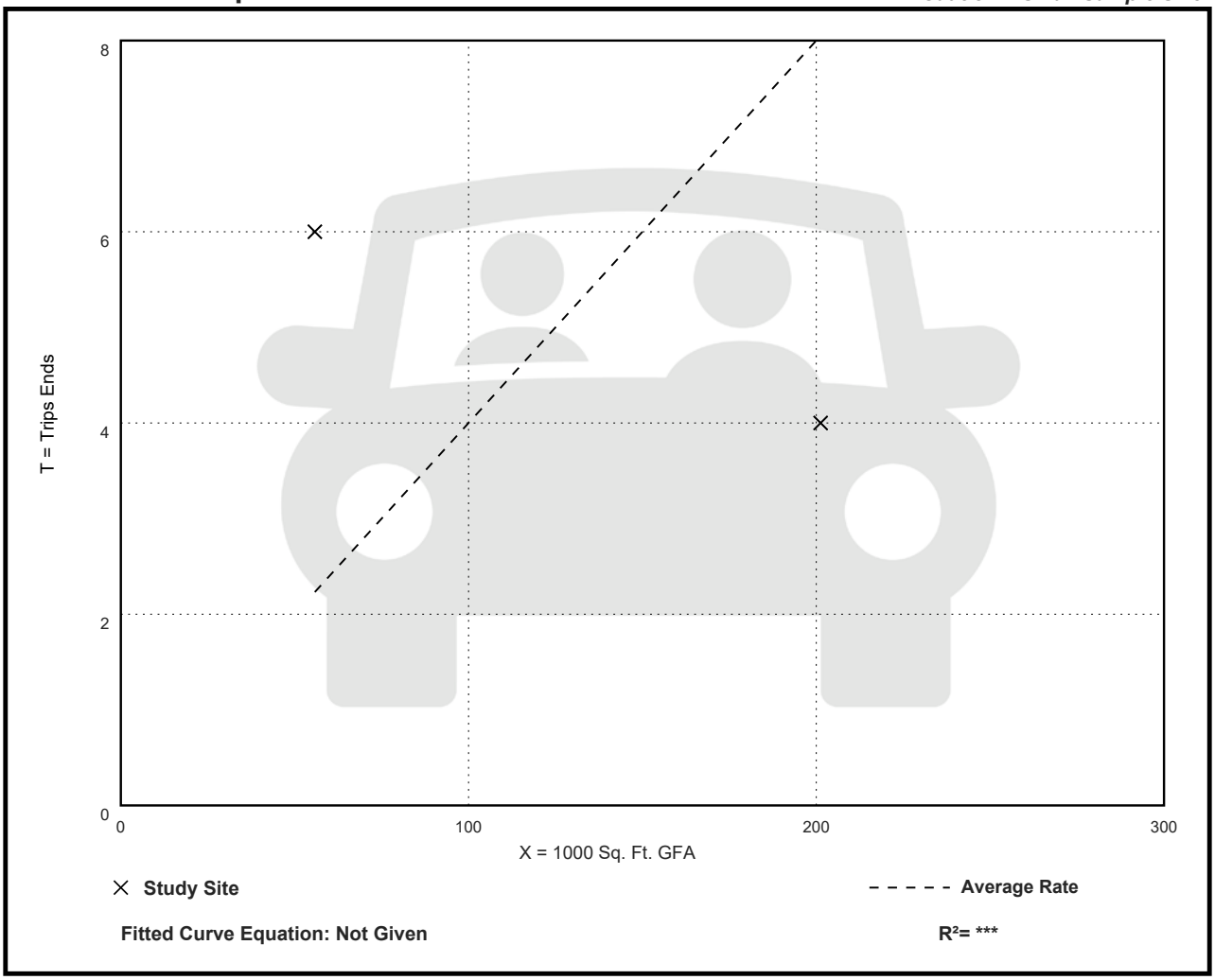
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 129
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.11	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Warehousing
(150)

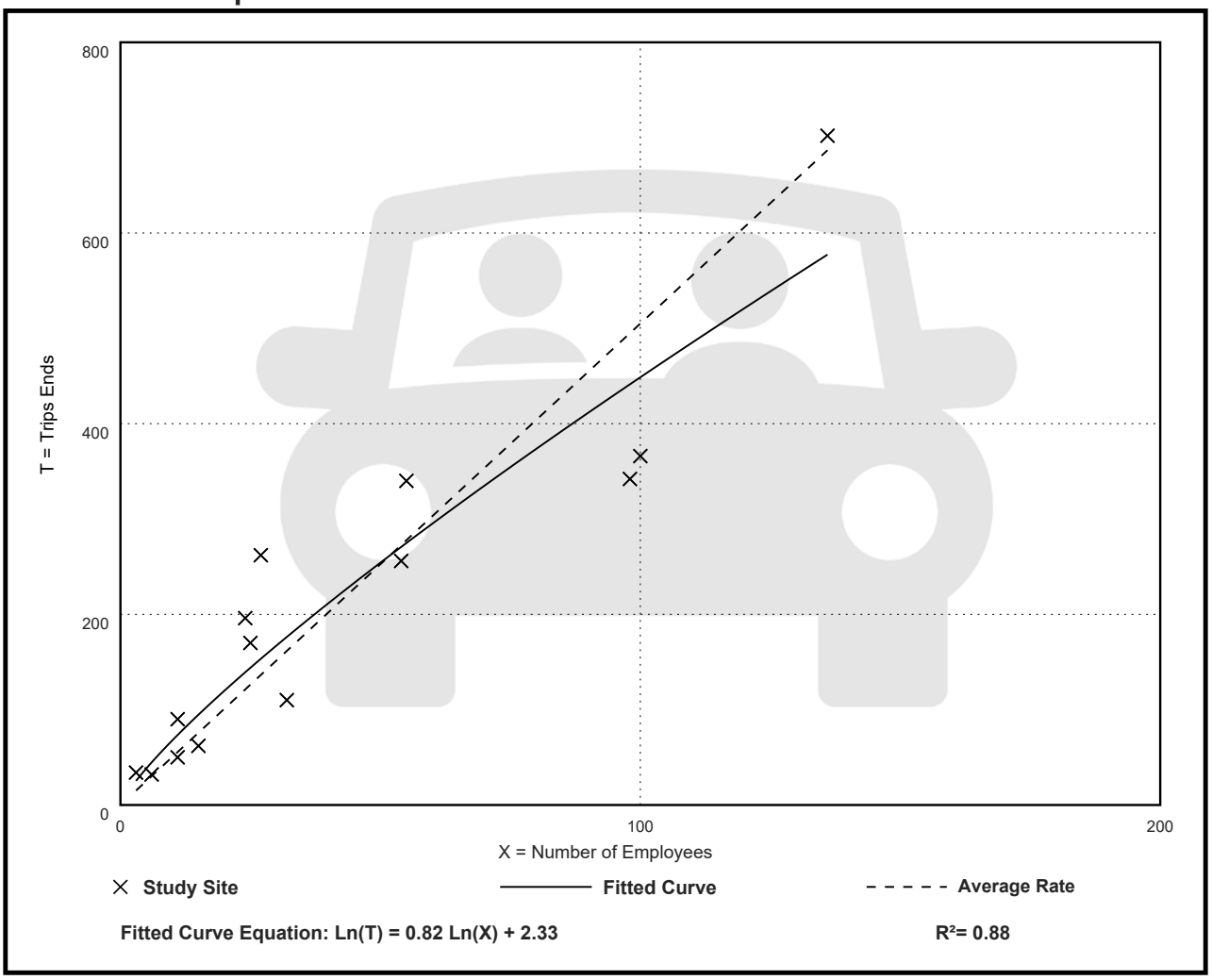
Vehicle Trip Ends vs: Employees
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 14
Avg. Num. of Employees: 43
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
5.05	3.44 - 11.33	1.77

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.82 Ln(X) + 2.33

R^2= 0.88

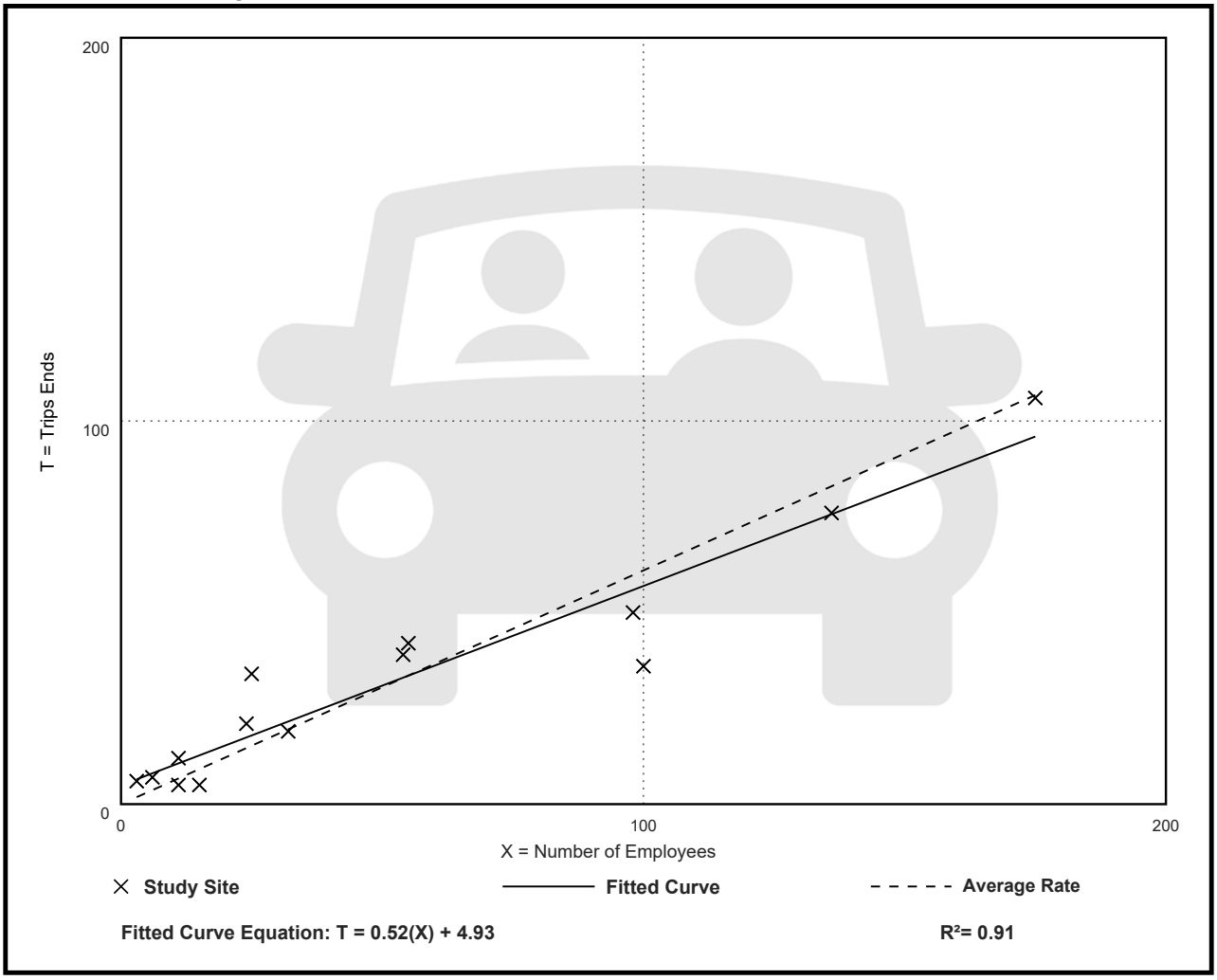
Warehousing
(150)

Vehicle Trip Ends vs: Employees
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. Num. of Employees: 53
Directional Distribution: 72% entering, 28% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.61	0.33 - 2.00	0.23

Data Plot and Equation



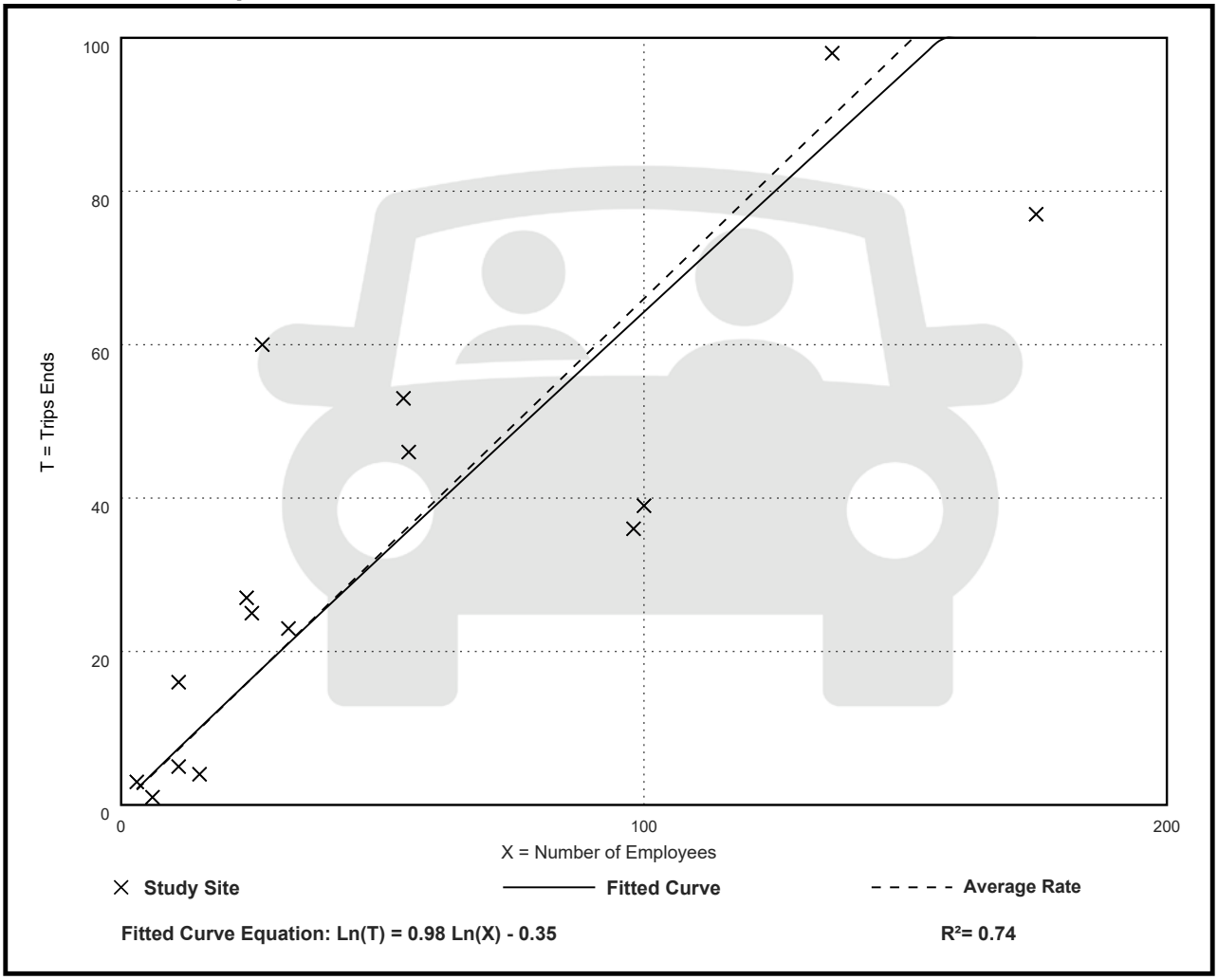
Warehousing
(150)

Vehicle Trip Ends vs: Employees
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: 15
Avg. Num. of Employees: 51
Directional Distribution: 36% entering, 64% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.66	0.17 - 2.22	0.40

Data Plot and Equation



Warehousing
(150)

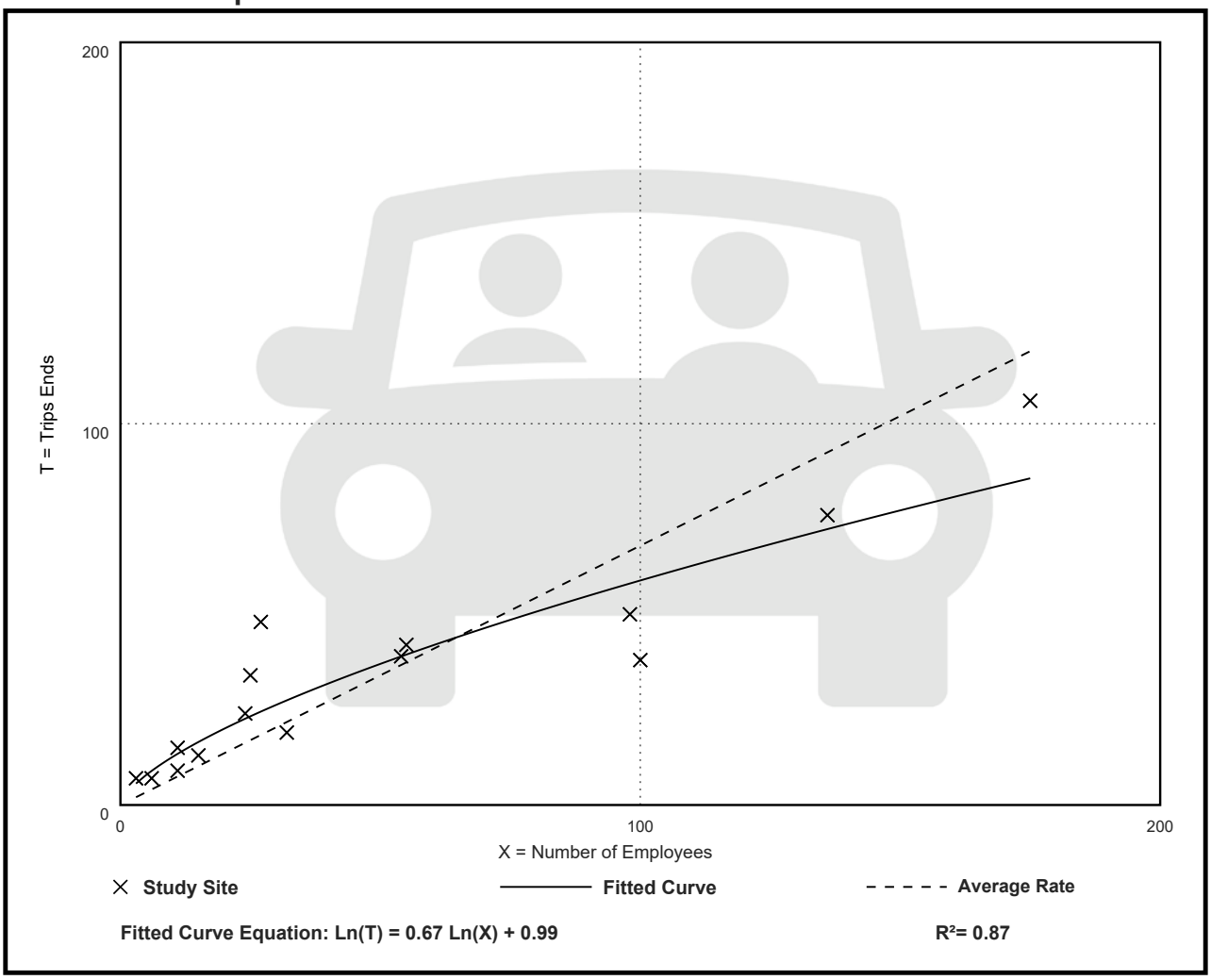
Vehicle Trip Ends vs: Employees
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Employees: 51
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.68	0.38 - 2.33	0.33

Data Plot and Equation



Warehousing
(150)

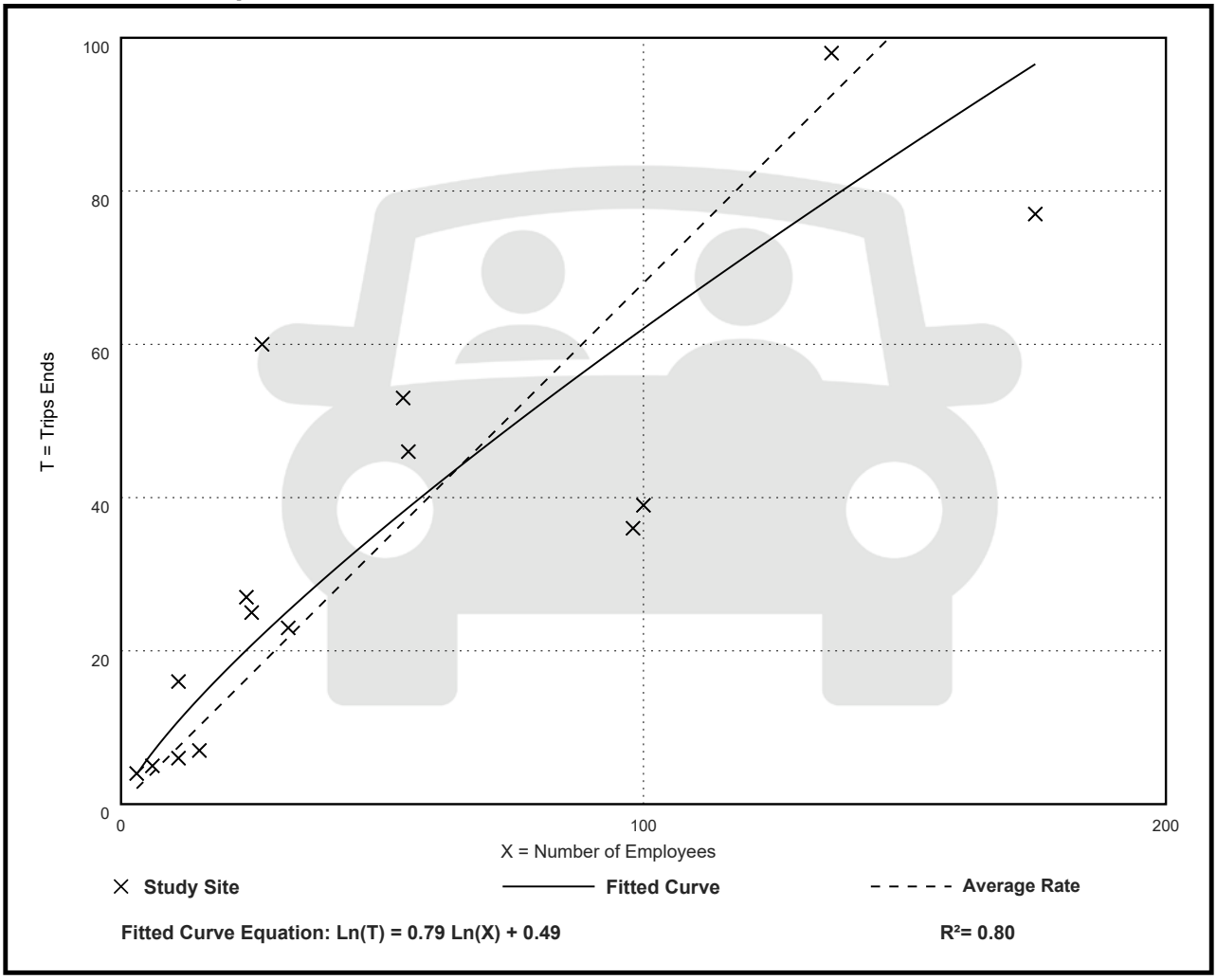
Vehicle Trip Ends vs: Employees
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Employees: 51
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.68	0.37 - 2.22	0.40

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.79 Ln(X) + 0.49

R^2= 0.80

Land Use: 491
Racquet/Tennis Club

Description

A racquet/tennis club is a privately-owned facility that primarily caters to racquet sports (tennis, racquetball, pickle ball, handball, squash) both indoor and outdoor. This land use may also provide ancillary facilities, such as a whirlpool, sauna, spa, weight room, snack bar, or retail store. Some sites offer daycare. Some sites offer competitive team sports. These facilities are membership clubs that may allow access to the general public for a fee. Tennis courts (Land Use 490), health/fitness club (Land Use 492), athletic club (Land Use 493), and recreational community center (Land Use 495) are related uses.

Additional Data

Some of the sites in this land use offered racquet/tennis competitions.

The sites were surveyed in the 1980s and the 1990s in Alberta (CAN) and California.

Source Numbers

440, 970

Racquet/Tennis Club
(491)

Vehicle Trip Ends vs: Tennis Courts
On a: Weekday

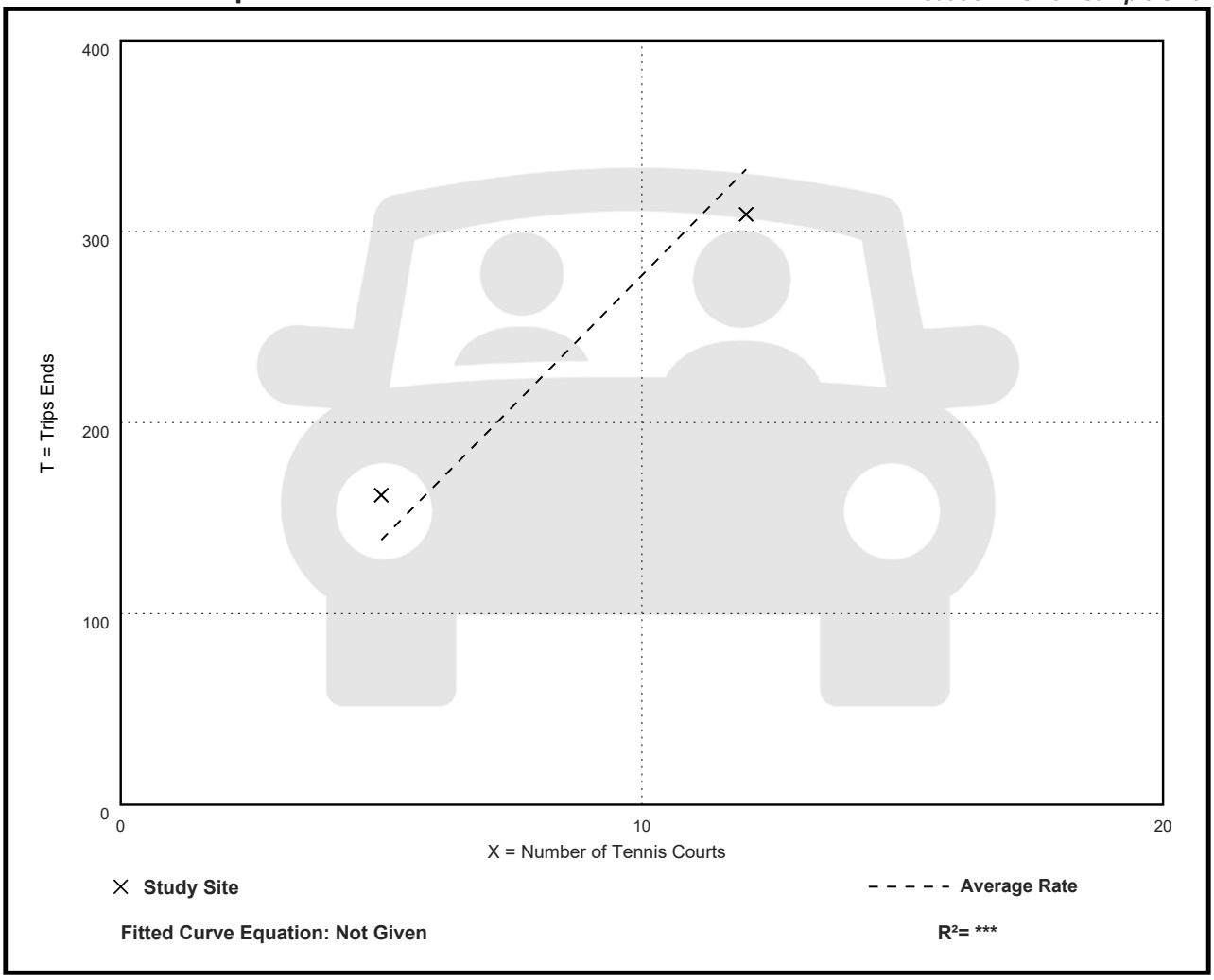
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. Num. of Tennis Courts: 9
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Tennis Court

Average Rate	Range of Rates	Standard Deviation
27.71	25.75 - 32.40	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Racquet/Tennis Club
(491)

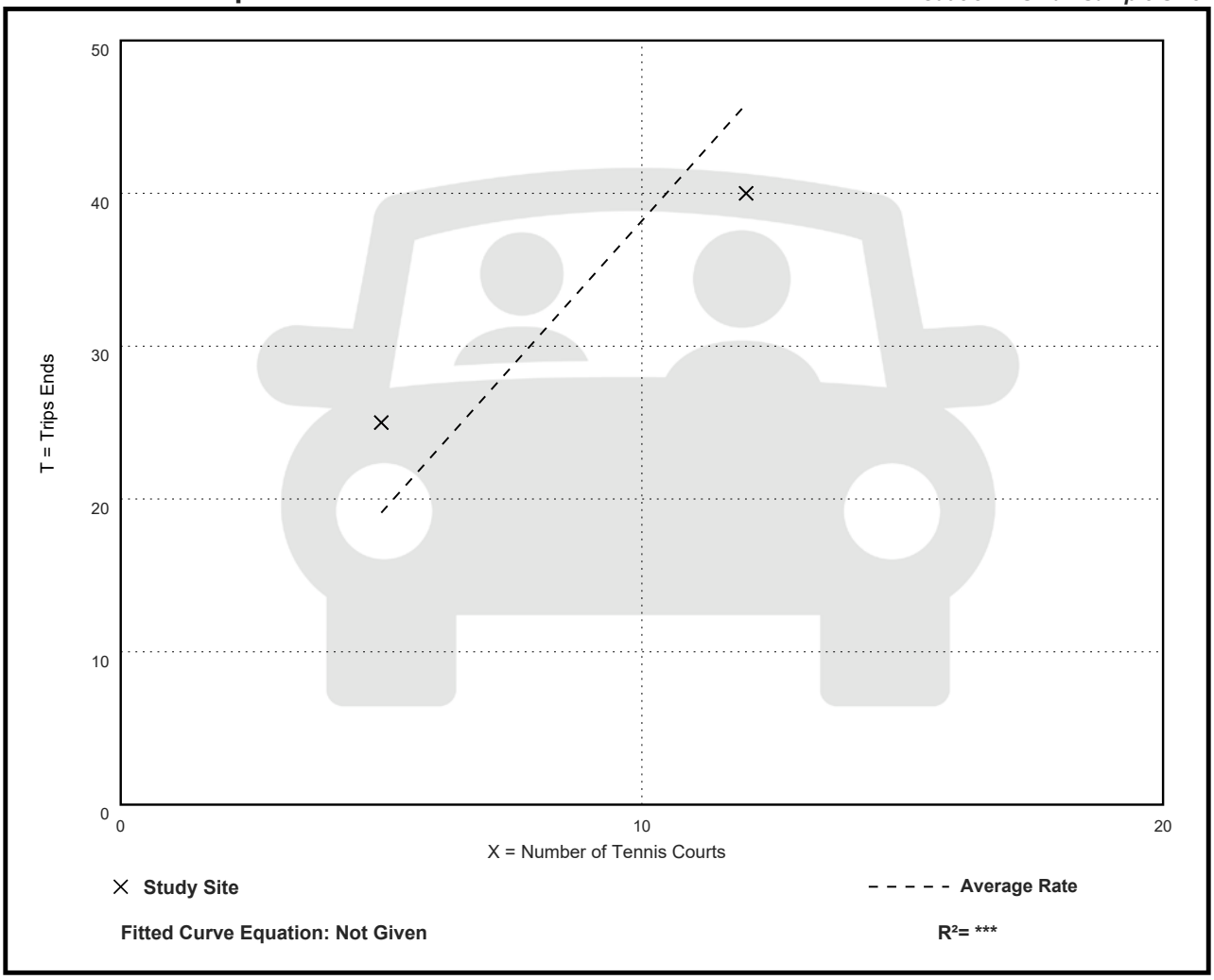
Vehicle Trip Ends vs: Tennis Courts
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. Num. of Tennis Courts: 9
Directional Distribution: Not Available

Vehicle Trip Generation per Tennis Court

Average Rate	Range of Rates	Standard Deviation
3.82	3.33 - 5.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Racquet/Tennis Club
(491)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

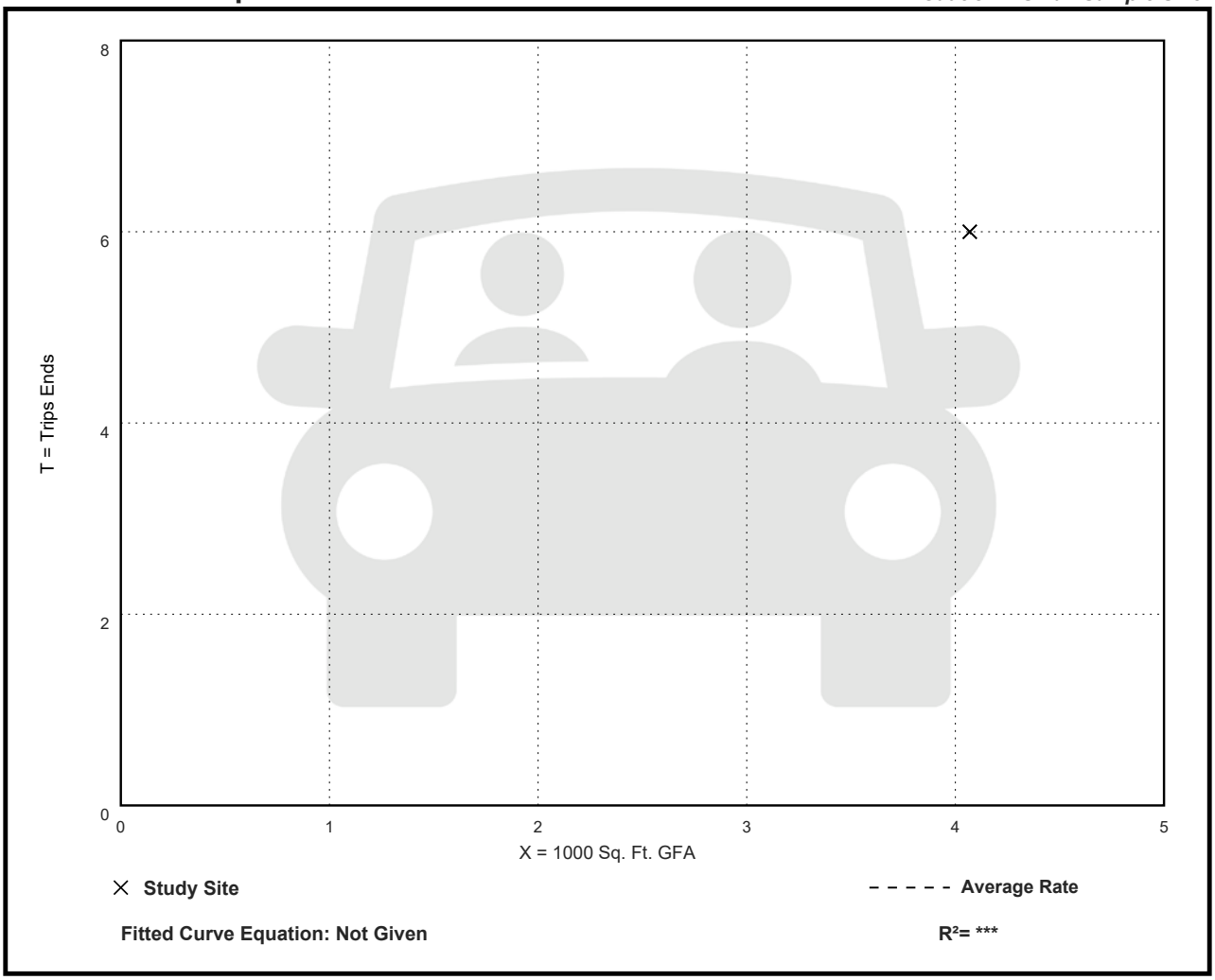
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.47	1.47 - 1.47	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Racquet/Tennis Club
(491)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

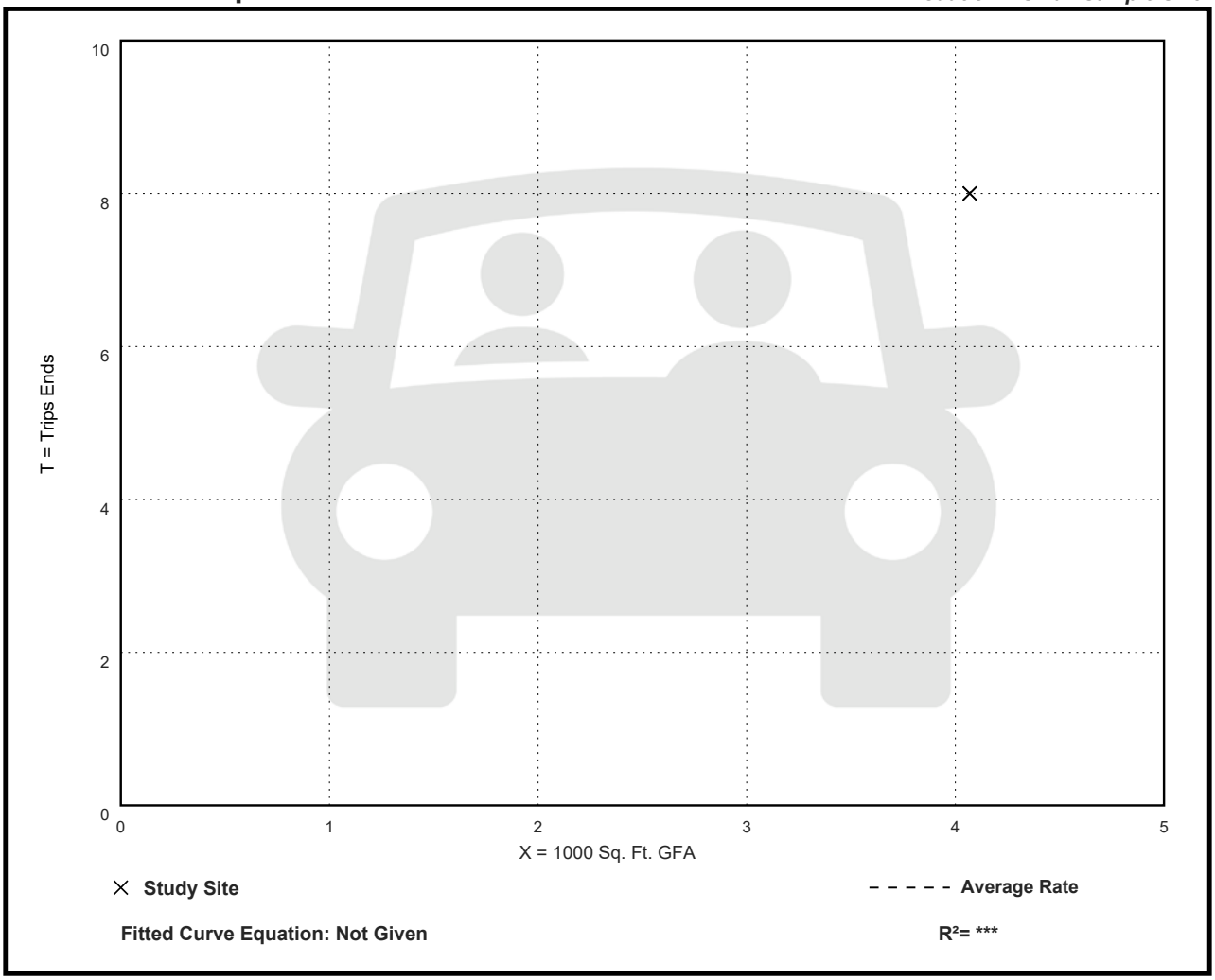
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.97	1.97 - 1.97	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***