

APPENDIX K

Trip Generation Assessment and Traffic Scoping



August 16, 2022; Revised April 24, 2023

Patty Nevins
City of Fontana
8353 Sierra Avenue
Fontana, CA 92335

RE: *Trip Generation Assessment and Traffic Scoping for the Proposed Sierra Distribution Facility in the City of Fontana*

Dear Ms. Nevins:

Kimley-Horn and Associates, Inc. is submitting this Trip Generation Assessment and Traffic Scoping Letter to the City of Fontana to satisfy the requirements outlined in the *City's Traffic Impact Analysis (TIA) Guideline for Vehicle Miles Traveled (VMT) and Level of Service Assessment*, dated October 21, 2020.

PROJECT DESCRIPTION

Seefried Industrial Properties (Applicant) proposes to redevelop an approximately 18.3-acre site that currently includes five (5) storage warehouses buildings and provides significant long-term parking/storage for heavy vehicles. The current site access is provided via one (1) right-in/right-out driveway along Sierra Avenue, approximately 400-feet north of Clubhouse Drive. The Applicant proposes to construct an approximately 399 KSF distribution warehouse (Project). Access to the site would be provided via two (2) right-in/right-out driveways along Sierra Avenue and two (2) full-access driveways along Mango Avenue. The Project is expected to be constructed one (1) phase and completed in 2025. **Attachment A** contains the proposed site plan. Based on previous coordination with City staff, truck traffic generated by the site would be restricted from using Summit Avenue and would be discouraged from traveling north along Sierra Avenue

EXISTING SITE TRAFFIC

Inbound/outbound traffic data was collected at the existing site in order to quantify the current traffic being generated by the existing facility's operations. A video camera was installed at the single driveway location along Sierra Avenue to collect inbound/outbound vehicular counts generated by the site. Counts were classified by vehicle types according to the Federal Highway Administration (FHWA): passenger vehicles (FHWA Class 1-3), small/mid-size delivery trucks (FWWA Class 4-7) and large delivery trucks (FHWA Class 8-13). These counts/classifications were conducted for a 72-hour (3-day) period from Tuesday June 14, 2022, through Thursday June 16, 2022. **Attachment B** contains the and raw data collection sheets for each day and the 3-day average trip generation calculations. Consistent with the City's TIA guidelines, traffic counts were converted to a Passenger Car Equivalent (PCE) for the 3-day average data.

- FHWA Class 1-3: 1.0 PCE
- FHWA Class 4-7: 2.5 PCE
- FHWA Class 8-13: 3.0 PCE

Table 1 summarizes the results of the 3-day average PCE data for the existing facility.

Table 1: Existing Trip Generation

| Facility | Vehicle Type | Daily | AM Peak Hour of Generator | | | PM Peak Hour of Generator | | |
|--------------------------|----------------|------------|---------------------------|-----------|-----------|---------------------------|-----------|-----------|
| | | | Total | In | Out | Total | In | Out |
| Existing Site | Passenger Cars | 93 | 11 | 6 | 5 | 1 | 0 | 1 |
| | Trucks (PCE) | 877 | 65 | 30 | 35 | 45 | 27 | 18 |
| Net Site Trip Generation | Total (PCE) | 970 | 76 | 36 | 40 | 46 | 27 | 19 |

The existing site surveyed had the following average trips generated:

- 970 Average Daily PCE Trips
- 76 AM Peak Hour Trips (36 inbound / 40 outbound)
- 46 AM Peak Hour Trips (27 inbound / 19 outbound)

PROPOSED TRIP GENERATION

Per the City’s TIA guidelines, “the latest edition of the *Institute of Transportation Engineers (ITE) Trip Generation Manual* is the preferred source for calculating trip generation in the City of Fontana.” Trip generation estimated for the Project is based on the *ITE Trip Generation Manual* (11th Edition). Based on the building design, size, proposed parking/docks, etc., the proposed project operations are most comparable to a High-Cube Transload and Short-Term Warehouse (ITE Land Use Code 154) or High-Cube Fulfillment Center Warehouse – Non-Sort (ITE Land Use Code 155). However, when analyzing the ITE trip rates for these uses, it was determined that these rates may underestimate the traffic generated to some extent. Therefore, the Warehousing use (ITE Land Use Code 150) was selected for a more conservative estimate of traffic generation. **Table 2** summarizes the trip generation for the proposed project. Based on ITE Warehouse rates selected, the proposed project is estimated to generate 682 daily trips, with 68 trips during the AM peak hour and 72 trips during the PM peak hour. Following the City’s TIA guidelines for estimating trip generation, the trips were converted to a PCE based on ITE truck trip rates. The truck mixes by number of axles were based on the *City of Fontana Truck Trip Generation Study* for the Light Warehouse land use category. The truck trips were then converted to PCE trips using the factors from the City’s guidelines.

The proposed project is estimated to generate a total of 1,076 PCE trips daily, with 85 PCE trips (63 inbound / 22 outbound) during the AM peak hour, and 84 PCE trips (26 inbound / 58 outbound) during the PM peak hour. Trip Generation excerpts for ITE Land Use 150, 154 and 155 are included in **Attachment C** for comparison.

Table 2: Project Trip Generation

| Land Use | Land Use as listed in ITE | ITE Land Use Code | Units ¹ | Trip Rate ² | Daily Trips | AM Peak-Hour | | | | | | PM Peak-Hour | | | | | |
|--|-------------------------------|-------------------|--------------------|------------------------|--------------|-----------------------|---------------------------|-------------|-----------|-----------|-----------------------|---------------------------|-------------|-----|-----------|-----------|-----------|
| | | | | | | % of ADT ² | In:Out Ratio ² | In | Out | Total | % of ADT ² | In:Out Ratio ² | In | Out | Total | | |
| Driveway Trips³ | | | | | | | | | | | | | | | | | |
| Proposed Vehicles | | | | | | | | | | | | | | | | | |
| Warehouse | Warehousing | 150 | 399 ksf | 1.71 / ksf | 682 | 10% | 0.77 : 0.23 | 52 | 16 | 68 | 11% | 0.28 : 0.72 | 20 | 52 | 72 | | |
| Subtotal | | | | | 682 | | | | 52 | 16 | 68 | | | | 20 | 52 | 72 |
| Proposed Passenger Vehicles | | | | | | | | | | | | | | | | | |
| Warehouse | Warehousing | 150 | 399 ksf | 1.11 / ksf | 443 | 14% | 0.80 : 0.20 | 48 | 12 | 60 | 14% | 0.23 : 0.77 | 14 | 46 | 60 | | |
| Proposed Trucks | | | | | | | | | | | | | | | | | |
| Warehouse | Warehousing | 150 | 399 ksf | 0.6 / ksf | 239 | 3% | 0.52 : 0.48 | 4 | 4 | 8 | 5% | 0.52 : 0.48 | 6 | 6 | 12 | | |
| Truck Breakdown | | | | | | | | | | | | | | | | | |
| Truck Type | Truck Mix ⁴ | | | | | | | | | | | | | | | | |
| 2 Axle | 25% | | | | | 59 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 | |
| 3 Axle | 21% | | | | | 49 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 | |
| 4 Axle | 55% | | | | | 131 | 4% | 0.60 : 0.40 | 3 | 2 | 5 | 4% | 0.50 : 0.50 | 3 | 3 | 5 | |
| Truck Subtotal | | | | | 239 | | | | 6 | 4 | 10 | | | | 5 | 5 | 9 |
| PCE Breakdown | | | | | | | | | | | | | | | | | |
| Truck Type | Passenger Car Equivalent Rate | | | | | | | | | | | | | | | | |
| 2 Axle | 2.0 | | | | | 118 | 4% | 0.60 : 0.40 | 3 | 2 | 5 | 4% | 0.50 : 0.50 | 2 | 2 | 4 | |
| 3 Axle | 2.5 | | | | | 123 | 4% | 0.60 : 0.40 | 3 | 2 | 5 | 4% | 0.50 : 0.50 | 2 | 2 | 4 | |
| 4 Axle | 3.0 | | | | | 393 | 4% | 0.60 : 0.40 | 9 | 6 | 16 | 4% | 0.50 : 0.50 | 8 | 8 | 16 | |
| Truck Subtotal (PCE) | | | | | 634 | | | | 15 | 10 | 25 | | | | 12 | 12 | 24 |
| NET TRIP GENERATION = | | | | | 1,076 | | | | 63 | 22 | 85 | | | | 26 | 58 | 84 |
| Note: | | | | | | | | | | | | | | | | | |
| 1. ksf = Thousand Square Feet | | | | | | | | | | | | | | | | | |
| 2. Trip rates references from ITE Trip Generation, 11th Edition. | | | | | | | | | | | | | | | | | |
| 3. Driveway trips are the total number of trips generated by a site. | | | | | | | | | | | | | | | | | |
| 4. Truck Mixes based on Fontana Study (Light Warehouse land use) | | | | | | | | | | | | | | | | | |

TRIP GENERATION COMPARISON

Table 3 provides a comparison of the trips currently being generated by at the existing site and the trip estimated to be generated by the proposed project. The proposed project is estimated to generate just an additional 106 PCE trips daily, with 9 PCE trips during the AM peak hour and 38 PCE trips during the PM peak hour.

Table 3: Trip Generation Comparison

| Facility | Vehicle Type | Daily | AM Peak Hour of Generator | | | PM Peak Hour of Generator | | |
|---|----------------|------------|---------------------------|-----------|------------|---------------------------|-----------|-----------|
| | | | Total | In | Out | Total | In | Out |
| Existing Site | Passenger Cars | 93 | 11 | 6 | 5 | 1 | 0 | 1 |
| | Trucks | 877 | 65 | 30 | 35 | 45 | 27 | 18 |
| | Total | 970 | 76 | 36 | 40 | 46 | 27 | 19 |
| Project Estimate | Passenger Cars | 443 | 60 | 48 | 12 | 60 | 14 | 46 |
| | Trucks (PCE) | 634 | 25 | 15 | 10 | 24 | 12 | 12 |
| | Total | 1,076 | 85 | 63 | 22 | 84 | 26 | 58 |
| Net Site Trip Generation | | 106 | 9 | 27 | -18 | 38 | -1 | 39 |
| VMT Requirements | | | | | | | | |
| CEQA VMT Analysis - 500 ore more net daily trips | | | | | | | | |
| LOS Requirements | | | | | | | | |
| Traffic Impact Analysis - more than 250 two-way peak hour trips | | | | | | | | |
| Traffic Impact Analysis (Small) - between 100 and 249 two-way peak hour trips | | | | | | | | |
| Focused Traffic Analysis - between 50 and 100 two-way peak hour trips | | | | | | | | |
| Trip Generation Memo - less than 50 peak hour trips | | | | | | | | |

CONCLUSIONS

Attachment D contains the “Exhibit A – Scoping Agreement for Traffic Impact Study” from the City’s guidelines.

Level of Service Analysis

Per the City’s TIA guidelines, Level Of Service (LOS) analysis requirements are determined based on the expected trip generation, as follows:

- Traffic Impact Analysis – adds more than 250 two-way peak hour trips
- Traffic Impact Analysis (Small) – adds between 100 and 250 two-way peak hour trips
- Focused Traffic Analysis – adds between 50 and 100 two-way peak hour trips
- Trip Generation Memo – adds less than 50 two-way peak hour trips

Because the proposed project is estimated to generate less than 50 net new PCE trips for both the AM and PM peak hours (9 AM / 38 PM), an evaluation of LOS is not required. The proposed project is required to provide a Trip Generation Memo, for which this Letter satisfies.

Vehicle Miles Traveled Analysis

Per the City's TIA guidelines, "projects that generate fewer than 500 net average daily trips (ADT) would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. The screening criteria trip limit is based on net trip generation after considering pass-by, internal capture, affordable housing, and/or existing land use trips."

Because the proposed project is estimated to generate just 106 additional ADT, the project would be screened from VMT analysis requirements and the project is assumed to have a less than significant impact on VMT.

The findings and conclusions outlined in this letter was approved by City staff on December 19, 2022. A revised letter has been provided to reflect a site plan change from 398,034 SF to 398,514. **Attachment E** contains the City's approval to letter dated August 16, 2022.

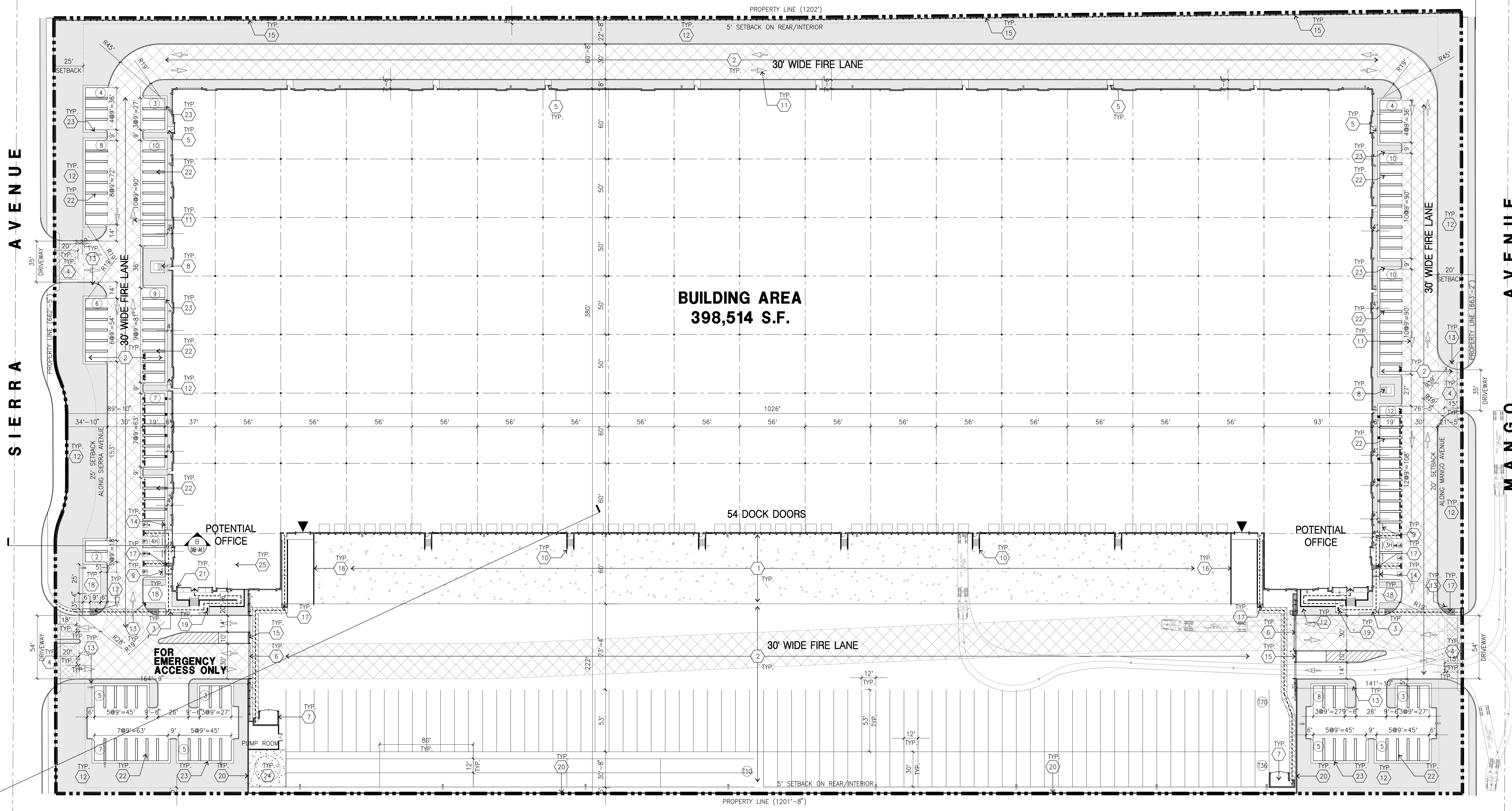
Please contact me if you have any questions, comments, or concerns.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Joe Shultz, CA P.E. 84152



OVERALL SITE PLAN A
 scale: 1" = 40'-0"
 SCALE: 1" = 40'-0"
 0 40' 80' 120'
 TRUE NORTH

PROJECT INFORMATION

Owner / Applicant
 SEEFRIED INDUSTRIAL PROPERTIES
 2321 ROSECRANS AVE., SUITE 2202
 EL SEGUNDO, CA 90245
 PHONE: 310-56-7900
 CONTACT: SCOTT IRWIN

Construction Type
 CONCRETE TILT-UP BUILDING

Zoning
 M1 LIGHT INDUSTRIAL

Code Analysis
 2022 CALIFORNIA BUILDING CODE
 2022 CALIFORNIA PLUMBING CODE
 2022 CALIFORNIA MECHANICAL CODE
 2022 CALIFORNIA ELECTRICAL CODE
 2022 CALIFORNIA FIRE CODE
 2022 CALIFORNIA ENERGY CODE
 2022 CALIFORNIA GREEN BUILDING STANDARDS
 CITY OF FONTANA MUNICIPAL CODE

Project Address
 SIERRA AVE.
 FONTANA, CA 92337

Applicant Representative
 HPA, INC.
 18831 BARDEEN AVE. STE 100
 IRVINE, CA 92612
 PHONE: 949-862-2138
 CONTACT: HOONKEUN PARK

VICINITY MAP



PROJECT DATA

| | | |
|---|------------|-------------------|
| SITE AREA | In s.f. | 797,033 sf |
| | In acres | 18.30 ac |
| BUILDING AREA | | |
| Office | 10,000 sf | |
| Warehouse | 388,514 sf | |
| TOTAL | | 398,514 sf |
| FLOOR AREA RATIO | | |
| Maximum Allowed | 0.60 | |
| Actual | 0.500 | |
| SITE COVERAGE | | |
| Maximum Allowed | 60% | |
| Actual | 50.0% | |
| AUTO PARKING REQUIRED | | |
| Office (required if over 10% of G.F.A.) | 0 stalls | |
| Where: 1st 20,000 @ 1/1,000 s.f. | 20 stalls | |
| 2nd 20,000 @ 1/2,000 s.f. | 10 stalls | |
| above 40,000 @ 1/5,000 s.f. | 72 stalls | |
| TOTAL | | 102 stalls |
| AUTO PARKING PROVIDED | | |
| Standard (9' x 19') | 98 stalls | |
| ADA Standard (9' x 19') | 5 stalls | |
| ADA Van (12' x 19') | 1 stall | |
| EV ADA Van (12' x 19') | 1 stall | |
| EV Charging Only (9' x 19') | 21 stalls | |
| EV ADA (9' x 19') | 1 stall | |
| EV Amenity (12' x 19') | 0 stalls | |
| Car pool/Van pool (No Future EV conduit) | 5 stalls | |
| TOTAL | | 132 stalls |
| TRAILER PARKING REQUIRED | | |
| Trailer (12' x 53') | 80 stalls | |
| TRAILER PARKING PROVIDED | | |
| Trailer (12' x 53') | 71 stalls | |
| Trailer Tandem (12' x 80') | 10 stalls | |
| Tractor Trailer (12' x 30') | 37 stalls | |
| TOTAL | | 118 stalls |
| ZONING ORDINANCE | | |
| Zoning Designation - Light Industrial (M-1) | | |
| MAXIMUM BUILDING HEIGHT ALLOWED | | |
| Height - 75' | | |
| LANDSCAPE REQUIREMENT | | |
| Percentage - 15% not including building | | |
| LANDSCAPE PROVIDED | | |
| In s.f. | 78,795 sf | |
| Percentage | 19.8% | |
| SETBACKS | | |
| Sierra Avenue - 25' | | |
| Mango Ave. - 20' | | |
| Rear/Interior - 5' Abutting R or C-1 Zone - 10' | | |

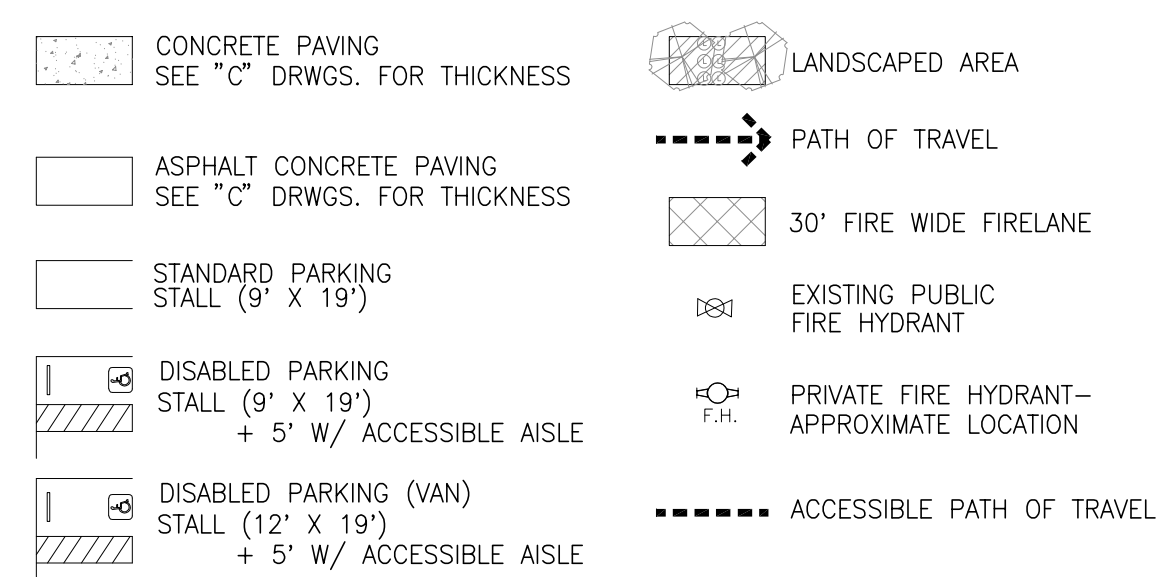
SITE PLAN KEYNOTES

- HEAVY BROOM FINISH CONCRETE PAVEMENT.
- ASPHALT CONCRETE (AC) PAVING.
- CONCRETE WALKWAY, MEDIUM BROOM FINISH.
- DRIVEWAY APRONS TO BE CONSTRUCTED, SEE LANDSCAPE PLAN
- 5'-6"x5'-6"x4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH.
- PROVIDE 8" HIGH METAL GATES W/ KNOX-BOX PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
- TRASH ENCLOSURE PER CITY STANDARD.
- APPROXIMATE LOCATION OF TRANSFORMER.
- PRE-CAST CONCRETE WHEEL STOP.
- CONCRETE FILLED GUARD POST "6 DIA. U.N.O. 42" H.
- PROVIDE ENTRANCES/EXITS AND ARROWS PAINTED ARROWS ON PAVEMENT PARKING LOT PER CITY STANDARDS.
- LANDSCAPE. ALL LANDSCAPE AREAS INDICATED BY SHADING.
- ACCESSIBLE ENTRY SIGN, WAYFINDING ARROW SIGN.
- ACCESSIBLE PARKING STALL SIGN.
- 8" HIGH METAL FENCE.
- 42" HIGH CONCRETE GUARDWALL.
- TRUNCATED DOME.
- EMPLOYEE BREAK PATIO AREA. SEE LANDSCAPE PLAN FOR DETAILS.
- EXTERIOR BIKE RACK.
- 14" HIGH CONCRETE TILT-UP SCREEN WALL
- RAIN GUTTERS TO BE ON THE INTERIOR WHEN VISIBLE FROM THE PUBLIC RIGHT OF WAY
- DOUBLE STRIPED AUTO PARKING LINE
- CONCRETE CURB 2' OF CONCRETE STEP OUT AND OVERHANG
- CONCRETE PAD FOR FUTURE WATER TANK OF PUMP ROOM
- PROVIDE LOCKER, SHOWER AND CHANGING ROOM FACILITY ACCESSIBLE FOR BOTH MEN/WOMEN FOR EMPLOYEES BICYCLING OR WALKING TO WORK.

SITE PLAN GENERAL NOTES

- THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY: TBD
- IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
- ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
- SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
- THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
- SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
- CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
- SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
- CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH U.N.O.
- PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
- CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
- PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PUBLIC FACILITIES DEVELOPMENT.
- ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC FACILITIES DEVELOPMENT.
- LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB.
- ALL GROUND MOUNTED UTILITY STRUCTURES SUCH AS TRANSFORMERS, HVAC EQUIPMENT AND BACK FLOW PREVENTION VALVES SHALL BE LOCATED OUT OF VIEW FROM A PUBLIC STREET OR ADEQUATELY SCREENED THROUGH THE USE OF LANDSCAPING AND/OR MASONRY WALLS.

SITE LEGEND



hpa, inc.
 18831 bardeen avenue, - ste. #100
 irvine, ca
 92612
 tel: 949-863-1770
 fax: 949-863-0851
 email: hpa@hparchs.com



Owner:

SEEFRIED
 INDUSTRIAL PROPERTIES

2321 ROSECRANS AVE
 EL SEGUNDO, CA 90245

tel: (310) 536-7900

Project:

SIERRA
 DISTRIBUTION
 FACILITY

SIERRA AVE.
 FONTANA, CA 92337

Consultants:

Civil: HUITT-ZOLLARS
 Structural: -
 Mechanical: -
 Plumbing: -
 Electrical: -
 Landscape: HUNTER LANDSCAPE
 Fire Protection: -
 Soils Engineer: -

Title: Overall Site Plan

Project Number: 20533

Drawn by: CC

Date: 07/01/22

Revision:

2nd Submittal 01/03/23

Sheet:

DAB-A1.1

ATTACHMENT A

ATTACHMENT B

Prepared by National Data & Surveying Services

Directional Dwy In & Out

Location: Sierra Ave & Windflower Ave
City: Fontana

Date: 6/14/2022
Day: Tuesday

| TIME | FHWA (1-3) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 1 | 1 |
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| 6:30 AM | 0 | 0 |
| 6:45 AM | 0 | 0 |
| 7:00 AM | 4 | 1 |
| 7:15 AM | 1 | 2 |
| 7:30 AM | 1 | 1 |
| 7:45 AM | 0 | 0 |
| 8:00 AM | 2 | 4 |
| 8:15 AM | 2 | 0 |
| 8:30 AM | 0 | 0 |
| 8:45 AM | 1 | 0 |
| 9:00 AM | 0 | 1 |
| 9:15 AM | 1 | 0 |
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| 9:45 AM | 0 | 1 |
| 10:00 AM | 1 | 1 |
| 10:15 AM | 0 | 0 |
| 10:30 AM | 1 | 0 |
| 10:45 AM | 1 | 0 |
| 11:00 AM | 1 | 2 |
| 11:15 AM | 1 | 3 |
| 11:30 AM | 1 | 0 |
| 11:45 AM | 0 | 0 |
| 12:00 PM | 1 | 1 |
| 12:15 PM | 0 | 1 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 1 | 0 |
| 1:00 PM | 1 | 1 |
| 1:15 PM | 1 | 1 |
| 1:30 PM | 2 | 1 |
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| 10:00 PM | 0 | 0 |
| 10:15 PM | 0 | 0 |
| 10:30 PM | 1 | 1 |
| 10:45 PM | 0 | 0 |
| 11:00 PM | 0 | 1 |
| 11:15 PM | 0 | 0 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 0 | 1 |
| Totals | 51 | 49 |

| TIME | FHWA (4-7) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 3 |
| 2:00 AM | 0 | 1 |
| 2:15 AM | 0 | 0 |
| 2:30 AM | 2 | 2 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
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| 6:30 AM | 0 | 1 |
| 6:45 AM | 1 | 0 |
| 7:00 AM | 0 | 0 |
| 7:15 AM | 2 | 1 |
| 7:30 AM | 1 | 0 |
| 7:45 AM | 6 | 0 |
| 8:00 AM | 2 | 0 |
| 8:15 AM | 3 | 3 |
| 8:30 AM | 5 | 2 |
| 8:45 AM | 4 | 0 |
| 9:00 AM | 3 | 3 |
| 9:15 AM | 1 | 2 |
| 9:30 AM | 2 | 0 |
| 9:45 AM | 0 | 1 |
| 10:00 AM | 2 | 0 |
| 10:15 AM | 0 | 1 |
| 10:30 AM | 0 | 1 |
| 10:45 AM | 1 | 0 |
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| 11:15 AM | 0 | 1 |
| 11:30 AM | 1 | 1 |
| 11:45 AM | 0 | 0 |
| 12:00 PM | 2 | 0 |
| 12:15 PM | 0 | 4 |
| 12:30 PM | 2 | 1 |
| 12:45 PM | 0 | 1 |
| 1:00 PM | 0 | 0 |
| 1:15 PM | 4 | 1 |
| 1:30 PM | 4 | 0 |
| 1:45 PM | 4 | 0 |
| 2:00 PM | 2 | 6 |
| 2:15 PM | 0 | 5 |
| 2:30 PM | 0 | 0 |
| 2:45 PM | 2 | 0 |
| 3:00 PM | 1 | 4 |
| 3:15 PM | 2 | 1 |
| 3:30 PM | 0 | 1 |
| 3:45 PM | 1 | 2 |
| 4:00 PM | 0 | 0 |
| 4:15 PM | 1 | 1 |
| 4:30 PM | 1 | 0 |
| 4:45 PM | 0 | 2 |
| 5:00 PM | 2 | 0 |
| 5:15 PM | 1 | 2 |
| 5:30 PM | 0 | 0 |
| 5:45 PM | 0 | 1 |
| 6:00 PM | 0 | 1 |
| 6:15 PM | 2 | 2 |
| 6:30 PM | 3 | 0 |
| 6:45 PM | 1 | 1 |
| 7:00 PM | 0 | 2 |
| 7:15 PM | 1 | 0 |
| 7:30 PM | 0 | 3 |
| 7:45 PM | 2 | 0 |
| 8:00 PM | 1 | 2 |
| 8:15 PM | 2 | 0 |
| 8:30 PM | 0 | 0 |
| 8:45 PM | 1 | 0 |
| 9:00 PM | 2 | 1 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 0 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 0 | 0 |
| 10:15 PM | 1 | 0 |
| 10:30 PM | 0 | 2 |
| 10:45 PM | 1 | 0 |
| 11:00 PM | 1 | 0 |
| 11:15 PM | 2 | 1 |
| 11:30 PM | 0 | 2 |
| 11:45 PM | 3 | 0 |
| Totals | 93 | 74 |

| TIME | FHWA (8-13) | |
|---------------|-------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 1 |
| 12:15 AM | 0 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 1 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 2 | 0 |
| 1:45 AM | 2 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 0 | 0 |
| 2:30 AM | 0 | 0 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 1 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 1 |
| 4:45 AM | 0 | 0 |
| 5:00 AM | 1 | 1 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 1 | 0 |
| 5:45 AM | 0 | 0 |
| 6:00 AM | 0 | 0 |
| 6:15 AM | 1 | 0 |
| 6:30 AM | 0 | 1 |
| 6:45 AM | 0 | 1 |
| 7:00 AM | 0 | 0 |
| 7:15 AM | 1 | 0 |
| 7:30 AM | 0 | 1 |
| 7:45 AM | 0 | 4 |
| 8:00 AM | 3 | 2 |
| 8:15 AM | 0 | 5 |
| 8:30 AM | 1 | 0 |
| 8:45 AM | 0 | 3 |
| 9:00 AM | 0 | 3 |
| 9:15 AM | 2 | 5 |
| 9:30 AM | 1 | 0 |
| 9:45 AM | 0 | 1 |
| 10:00 AM | 2 | 2 |
| 10:15 AM | 1 | 1 |
| 10:30 AM | 0 | 1 |
| 10:45 AM | 0 | 0 |
| 11:00 AM | 0 | 0 |
| 11:15 AM | 1 | 1 |
| 11:30 AM | 0 | 0 |
| 11:45 AM | 3 | 1 |
| 12:00 PM | 3 | 1 |
| 12:15 PM | 0 | 1 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 1 |
| 1:00 PM | 1 | 1 |
| 1:15 PM | 1 | 0 |
| 1:30 PM | 1 | 1 |
| 1:45 PM | 1 | 3 |
| 2:00 PM | 4 | 1 |
| 2:15 PM | 0 | 5 |
| 2:30 PM | 0 | 0 |
| 2:45 PM | 2 | 0 |
| 3:00 PM | 1 | 0 |
| 3:15 PM | 1 | 1 |
| 3:30 PM | 0 | 1 |
| 3:45 PM | 1 | 1 |
| 4:00 PM | 1 | 0 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 3 | 2 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 3 | 0 |
| 5:15 PM | 0 | 1 |
| 5:30 PM | 1 | 2 |
| 5:45 PM | 1 | 1 |
| 6:00 PM | 1 | 1 |
| 6:15 PM | 1 | 0 |
| 6:30 PM | 1 | 2 |
| 6:45 PM | 1 | 0 |
| 7:00 PM | 1 | 1 |
| 7:15 PM | 1 | 1 |
| 7:30 PM | 2 | 1 |
| 7:45 PM | 1 | 2 |
| 8:00 PM | 1 | 1 |
| 8:15 PM | 0 | 0 |
| 8:30 PM | 0 | 3 |
| 8:45 PM | 1 | 0 |
| 9:00 PM | 0 | 1 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 1 |
| 9:45 PM | 1 | 0 |
| 10:00 PM | 0 | 0 |
| 10:15 PM | 1 | 0 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 0 | 0 |
| 11:00 PM | 0 | 0 |
| 11:15 PM | 1 | 2 |
| 11:30 PM | 0 | 2 |
| 11:45 PM | 0 | 0 |
| Totals | 62 | 79 |

Directional Dwy In & Out

Location: Sierra Ave & Windflower Ave
City: Fontana

Date: 6/15/2022
Day: Wednesday

| TIME | FHWA (1-3) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 1 |
| 12:45 AM | 1 | 0 |
| 1:00 AM | 1 | 2 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 1 | 1 |
| 2:30 AM | 0 | 0 |
| 2:45 AM | 0 | 1 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 0 |
| 4:15 AM | 1 | 0 |
| 4:30 AM | 5 | 1 |
| 4:45 AM | 3 | 1 |
| 5:00 AM | 4 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 1 | 0 |
| 5:45 AM | 0 | 0 |
| 6:00 AM | 2 | 1 |
| 6:15 AM | 0 | 0 |
| 6:30 AM | 0 | 0 |
| 6:45 AM | 1 | 0 |
| 7:00 AM | 2 | 2 |
| 7:15 AM | 2 | 1 |
| 7:30 AM | 0 | 0 |
| 7:45 AM | 0 | 0 |
| 8:00 AM | 3 | 2 |
| 8:15 AM | 0 | 0 |
| 8:30 AM | 0 | 0 |
| 8:45 AM | 1 | 0 |
| 9:00 AM | 1 | 1 |
| 9:15 AM | 0 | 0 |
| 9:30 AM | 0 | 1 |
| 9:45 AM | 0 | 0 |
| 10:00 AM | 0 | 1 |
| 10:15 AM | 0 | 0 |
| 10:30 AM | 2 | 1 |
| 10:45 AM | 0 | 0 |
| 11:00 AM | 2 | 0 |
| 11:15 AM | 0 | 0 |
| 11:30 AM | 0 | 1 |
| 11:45 AM | 2 | 1 |
| 12:00 PM | 0 | 0 |
| 12:15 PM | 0 | 0 |
| 12:30 PM | 2 | 0 |
| 12:45 PM | 0 | 1 |
| 1:00 PM | 0 | 2 |
| 1:15 PM | 1 | 1 |
| 1:30 PM | 1 | 0 |
| 1:45 PM | 0 | 1 |
| 2:00 PM | 0 | 0 |
| 2:15 PM | 0 | 1 |
| 2:30 PM | 1 | 2 |
| 2:45 PM | 2 | 1 |
| 3:00 PM | 2 | 2 |
| 3:15 PM | 0 | 1 |
| 3:30 PM | 0 | 9 |
| 3:45 PM | 1 | 3 |
| 4:00 PM | 0 | 2 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 0 | 0 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 0 | 1 |
| 5:15 PM | 1 | 1 |
| 5:30 PM | 0 | 0 |
| 5:45 PM | 0 | 0 |
| 6:00 PM | 0 | 0 |
| 6:15 PM | 0 | 0 |
| 6:30 PM | 0 | 0 |
| 6:45 PM | 0 | 0 |
| 7:00 PM | 0 | 0 |
| 7:15 PM | 0 | 0 |
| 7:30 PM | 0 | 0 |
| 7:45 PM | 0 | 0 |
| 8:00 PM | 0 | 0 |
| 8:15 PM | 0 | 0 |
| 8:30 PM | 1 | 0 |
| 8:45 PM | 0 | 1 |
| 9:00 PM | 0 | 0 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 0 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 0 | 0 |
| 10:15 PM | 0 | 0 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 1 | 1 |
| 11:00 PM | 0 | 1 |
| 11:15 PM | 0 | 0 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 0 | 0 |
| Totals | 49 | 50 |

| TIME | FHWA (4-7) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 1 |
| 12:15 AM | 0 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 1 | 0 |
| 1:30 AM | 0 | 1 |
| 1:45 AM | 2 | 0 |
| 2:00 AM | 2 | 1 |
| 2:15 AM | 1 | 1 |
| 2:30 AM | 0 | 0 |
| 2:45 AM | 0 | 1 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 1 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 0 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 1 | 0 |
| 4:45 AM | 0 | 1 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 1 | 0 |
| 5:30 AM | 1 | 0 |
| 5:45 AM | 1 | 0 |
| 6:00 AM | 2 | 2 |
| 6:15 AM | 0 | 1 |
| 6:30 AM | 2 | 0 |
| 6:45 AM | 3 | 3 |
| 7:00 AM | 2 | 0 |
| 7:15 AM | 0 | 0 |
| 7:30 AM | 3 | 1 |
| 7:45 AM | 3 | 1 |
| 8:00 AM | 4 | 1 |
| 8:15 AM | 0 | 0 |
| 8:30 AM | 2 | 2 |
| 8:45 AM | 4 | 0 |
| 9:00 AM | 3 | 0 |
| 9:15 AM | 3 | 1 |
| 9:30 AM | 3 | 2 |
| 9:45 AM | 1 | 1 |
| 10:00 AM | 2 | 1 |
| 10:15 AM | 0 | 1 |
| 10:30 AM | 4 | 3 |
| 10:45 AM | 2 | 2 |
| 11:00 AM | 1 | 4 |
| 11:15 AM | 1 | 0 |
| 11:30 AM | 0 | 1 |
| 11:45 AM | 3 | 3 |
| 12:00 PM | 2 | 3 |
| 12:15 PM | 0 | 0 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 2 |
| 1:00 PM | 0 | 1 |
| 1:15 PM | 1 | 2 |
| 1:30 PM | 2 | 3 |
| 1:45 PM | 1 | 0 |
| 2:00 PM | 1 | 0 |
| 2:15 PM | 2 | 1 |
| 2:30 PM | 0 | 1 |
| 2:45 PM | 1 | 0 |
| 3:00 PM | 0 | 4 |
| 3:15 PM | 0 | 0 |
| 3:30 PM | 1 | 0 |
| 3:45 PM | 1 | 0 |
| 4:00 PM | 1 | 1 |
| 4:15 PM | 0 | 1 |
| 4:30 PM | 0 | 0 |
| 4:45 PM | 0 | 1 |
| 5:00 PM | 1 | 0 |
| 5:15 PM | 0 | 2 |
| 5:30 PM | 1 | 1 |
| 5:45 PM | 2 | 2 |
| 6:00 PM | 0 | 1 |
| 6:15 PM | 0 | 2 |
| 6:30 PM | 0 | 2 |
| 6:45 PM | 3 | 2 |
| 7:00 PM | 0 | 2 |
| 7:15 PM | 0 | 1 |
| 7:30 PM | 0 | 3 |
| 7:45 PM | 0 | 0 |
| 8:00 PM | 0 | 2 |
| 8:15 PM | 0 | 3 |
| 8:30 PM | 1 | 1 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 0 | 2 |
| 9:15 PM | 0 | 1 |
| 9:30 PM | 0 | 1 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 1 | 2 |
| 10:15 PM | 0 | 1 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 0 | 1 |
| 11:00 PM | 0 | 0 |
| 11:15 PM | 0 | 1 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 0 | 2 |
| Totals | 81 | 93 |

| TIME | FHWA (8-13) | |
|---------------|-------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 1 | 1 |
| 12:15 AM | 0 | 1 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 1 |
| 2:00 AM | 1 | 1 |
| 2:15 AM | 1 | 1 |
| 2:30 AM | 1 | 2 |
| 2:45 AM | 1 | 1 |
| 3:00 AM | 1 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 0 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 0 |
| 4:45 AM | 1 | 1 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 1 |
| 5:45 AM | 1 | 2 |
| 6:00 AM | 2 | 0 |
| 6:15 AM | 0 | 1 |
| 6:30 AM | 1 | 0 |
| 6:45 AM | 0 | 1 |
| 7:00 AM | 1 | 0 |
| 7:15 AM | 2 | 3 |
| 7:30 AM | 1 | 2 |
| 7:45 AM | 1 | 1 |
| 8:00 AM | 0 | 1 |
| 8:15 AM | 1 | 3 |
| 8:30 AM | 0 | 2 |
| 8:45 AM | 0 | 4 |
| 9:00 AM | 0 | 2 |
| 9:15 AM | 4 | 7 |
| 9:30 AM | 1 | 2 |
| 9:45 AM | 0 | 1 |
| 10:00 AM | 1 | 2 |
| 10:15 AM | 1 | 1 |
| 10:30 AM | 4 | 1 |
| 10:45 AM | 1 | 1 |
| 11:00 AM | 0 | 0 |
| 11:15 AM | 2 | 2 |
| 11:30 AM | 1 | 0 |
| 11:45 AM | 0 | 2 |
| 12:00 PM | 2 | 0 |
| 12:15 PM | 1 | 4 |
| 12:30 PM | 0 | 1 |
| 12:45 PM | 4 | 1 |
| 1:00 PM | 0 | 2 |
| 1:15 PM | 1 | 3 |
| 1:30 PM | 2 | 1 |
| 1:45 PM | 0 | 0 |
| 2:00 PM | 1 | 2 |
| 2:15 PM | 2 | 2 |
| 2:30 PM | 0 | 0 |
| 2:45 PM | 2 | 2 |
| 3:00 PM | 0 | 0 |
| 3:15 PM | 0 | 0 |
| 3:30 PM | 0 | 0 |
| 3:45 PM | 0 | 0 |
| 4:00 PM | 1 | 0 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 1 | 1 |
| 4:45 PM | 0 | 1 |
| 5:00 PM | 2 | 1 |
| 5:15 PM | 2 | 0 |
| 5:30 PM | 0 | 0 |
| 5:45 PM | 2 | 0 |
| 6:00 PM | 2 | 0 |
| 6:15 PM | 3 | 1 |
| 6:30 PM | 1 | 0 |
| 6:45 PM | 2 | 1 |
| 7:00 PM | 1 | 1 |
| 7:15 PM | 1 | 0 |
| 7:30 PM | 2 | 1 |
| 7:45 PM | 0 | 0 |
| 8:00 PM | 4 | 1 |
| 8:15 PM | 1 | 0 |
| 8:30 PM | 1 | 0 |
| 8:45 PM | 1 | 0 |
| 9:00 PM | 3 | 1 |
| 9:15 PM | 0 | 1 |
| 9:30 PM | 1 | 0 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 2 | 0 |
| 10:15 PM | 0 | 0 |
| 10:30 PM | 1 | 0 |
| 10:45 PM | 0 | 0 |
| 11:00 PM | 1 | 0 |
| 11:15 PM | 1 | 0 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 1 | 0 |
| Totals | 84 | 79 |

Directional Dwy In & Out

Location: Sierra Ave & Windflower Ave
City: Fontana

Date: 6/16/2022
Day: Thursday

| TIME | FHWA (1-3) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 1 |
| 12:15 AM | 1 | 1 |
| 12:30 AM | 1 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 0 | 0 |
| 2:30 AM | 0 | 0 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 0 |
| 4:15 AM | 1 | 0 |
| 4:30 AM | 2 | 1 |
| 4:45 AM | 7 | 0 |
| 5:00 AM | 3 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 0 |
| 5:45 AM | 0 | 0 |
| 6:00 AM | 2 | 0 |
| 6:15 AM | 1 | 2 |
| 6:30 AM | 1 | 0 |
| 6:45 AM | 0 | 0 |
| 7:00 AM | 1 | 0 |
| 7:15 AM | 1 | 0 |
| 7:30 AM | 4 | 2 |
| 7:45 AM | 1 | 0 |
| 8:00 AM | 3 | 6 |
| 8:15 AM | 5 | 2 |
| 8:30 AM | 1 | 1 |
| 8:45 AM | 0 | 1 |
| 9:00 AM | 1 | 0 |
| 9:15 AM | 0 | 1 |
| 9:30 AM | 1 | 0 |
| 9:45 AM | 0 | 0 |
| 10:00 AM | 1 | 1 |
| 10:15 AM | 0 | 0 |
| 10:30 AM | 2 | 0 |
| 10:45 AM | 1 | 0 |
| 11:00 AM | 1 | 5 |
| 11:15 AM | 1 | 1 |
| 11:30 AM | 1 | 1 |
| 11:45 AM | 1 | 2 |
| 12:00 PM | 0 | 0 |
| 12:15 PM | 2 | 2 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 0 |
| 1:00 PM | 1 | 0 |
| 1:15 PM | 0 | 0 |
| 1:30 PM | 0 | 0 |
| 1:45 PM | 0 | 0 |
| 2:00 PM | 0 | 1 |
| 2:15 PM | 2 | 0 |
| 2:30 PM | 1 | 3 |
| 2:45 PM | 2 | 2 |
| 3:00 PM | 0 | 0 |
| 3:15 PM | 0 | 0 |
| 3:30 PM | 1 | 7 |
| 3:45 PM | 1 | 9 |
| 4:00 PM | 0 | 2 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 1 | 1 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 0 | 0 |
| 5:15 PM | 0 | 0 |
| 5:30 PM | 0 | 1 |
| 5:45 PM | 0 | 0 |
| 6:00 PM | 0 | 0 |
| 6:15 PM | 0 | 0 |
| 6:30 PM | 0 | 0 |
| 6:45 PM | 0 | 0 |
| 7:00 PM | 0 | 0 |
| 7:15 PM | 0 | 0 |
| 7:30 PM | 0 | 0 |
| 7:45 PM | 0 | 0 |
| 8:00 PM | 0 | 0 |
| 8:15 PM | 0 | 0 |
| 8:30 PM | 1 | 1 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 0 | 0 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 0 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 1 | 0 |
| 10:15 PM | 0 | 1 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 0 | 1 |
| 11:00 PM | 1 | 0 |
| 11:15 PM | 0 | 1 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 0 | 0 |
| Totals | 60 | 61 |

| TIME | FHWA (4-7) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 1 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 1 |
| 1:45 AM | 0 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 1 | 1 |
| 2:30 AM | 0 | 1 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 1 | 0 |
| 4:00 AM | 0 | 2 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 0 |
| 4:45 AM | 0 | 0 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 0 |
| 5:45 AM | 1 | 1 |
| 6:00 AM | 1 | 1 |
| 6:15 AM | 0 | 0 |
| 6:30 AM | 0 | 1 |
| 6:45 AM | 1 | 2 |
| 7:00 AM | 0 | 2 |
| 7:15 AM | 0 | 1 |
| 7:30 AM | 0 | 1 |
| 7:45 AM | 2 | 0 |
| 8:00 AM | 0 | 0 |
| 8:15 AM | 0 | 0 |
| 8:30 AM | 3 | 2 |
| 8:45 AM | 1 | 0 |
| 9:00 AM | 0 | 0 |
| 9:15 AM | 1 | 0 |
| 9:30 AM | 0 | 1 |
| 9:45 AM | 1 | 0 |
| 10:00 AM | 1 | 0 |
| 10:15 AM | 1 | 2 |
| 10:30 AM | 2 | 2 |
| 10:45 AM | 2 | 0 |
| 11:00 AM | 2 | 3 |
| 11:15 AM | 1 | 0 |
| 11:30 AM | 0 | 3 |
| 11:45 AM | 0 | 1 |
| 12:00 PM | 0 | 0 |
| 12:15 PM | 2 | 0 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 0 |
| 1:00 PM | 2 | 0 |
| 1:15 PM | 3 | 0 |
| 1:30 PM | 1 | 4 |
| 1:45 PM | 0 | 0 |
| 2:00 PM | 1 | 0 |
| 2:15 PM | 0 | 0 |
| 2:30 PM | 0 | 2 |
| 2:45 PM | 0 | 0 |
| 3:00 PM | 1 | 1 |
| 3:15 PM | 0 | 0 |
| 3:30 PM | 0 | 0 |
| 3:45 PM | 0 | 1 |
| 4:00 PM | 0 | 0 |
| 4:15 PM | 1 | 1 |
| 4:30 PM | 0 | 1 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 1 | 1 |
| 5:15 PM | 1 | 0 |
| 5:30 PM | 1 | 0 |
| 5:45 PM | 0 | 0 |
| 6:00 PM | 0 | 0 |
| 6:15 PM | 0 | 0 |
| 6:30 PM | 2 | 0 |
| 6:45 PM | 0 | 2 |
| 7:00 PM | 1 | 1 |
| 7:15 PM | 2 | 2 |
| 7:30 PM | 0 | 0 |
| 7:45 PM | 0 | 1 |
| 8:00 PM | 2 | 3 |
| 8:15 PM | 0 | 0 |
| 8:30 PM | 0 | 2 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 0 | 0 |
| 9:15 PM | 1 | 0 |
| 9:30 PM | 0 | 1 |
| 9:45 PM | 0 | 2 |
| 10:00 PM | 1 | 2 |
| 10:15 PM | 0 | 1 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 2 | 2 |
| 11:00 PM | 0 | 2 |
| 11:15 PM | 0 | 0 |
| 11:30 PM | 1 | 0 |
| 11:45 PM | 1 | 1 |
| Totals | 52 | 62 |

| TIME | FHWA (8-13) | |
|---------------|-------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 0 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 1 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 2 | 0 |
| 2:30 AM | 1 | 2 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 2 | 1 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 0 |
| 4:45 AM | 0 | 0 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 0 |
| 5:45 AM | 1 | 0 |
| 6:00 AM | 1 | 1 |
| 6:15 AM | 1 | 0 |
| 6:30 AM | 1 | 1 |
| 6:45 AM | 2 | 0 |
| 7:00 AM | 0 | 0 |
| 7:15 AM | 3 | 0 |
| 7:30 AM | 1 | 0 |
| 7:45 AM | 0 | 1 |
| 8:00 AM | 1 | 2 |
| 8:15 AM | 1 | 0 |
| 8:30 AM | 0 | 1 |
| 8:45 AM | 0 | 3 |
| 9:00 AM | 1 | 1 |
| 9:15 AM | 0 | 1 |
| 9:30 AM | 1 | 0 |
| 9:45 AM | 0 | 0 |
| 10:00 AM | 0 | 1 |
| 10:15 AM | 3 | 0 |
| 10:30 AM | 0 | 0 |
| 10:45 AM | 1 | 3 |
| 11:00 AM | 2 | 0 |
| 11:15 AM | 2 | 1 |
| 11:30 AM | 1 | 2 |
| 11:45 AM | 1 | 1 |
| 12:00 PM | 0 | 1 |
| 12:15 PM | 1 | 1 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 1 |
| 1:00 PM | 1 | 2 |
| 1:15 PM | 3 | 2 |
| 1:30 PM | 0 | 2 |
| 1:45 PM | 0 | 1 |
| 2:00 PM | 1 | 2 |
| 2:15 PM | 3 | 1 |
| 2:30 PM | 0 | 0 |
| 2:45 PM | 1 | 0 |
| 3:00 PM | 0 | 1 |
| 3:15 PM | 0 | 1 |
| 3:30 PM | 1 | 0 |
| 3:45 PM | 0 | 1 |
| 4:00 PM | 0 | 0 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 1 | 0 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 1 | 1 |
| 5:15 PM | 0 | 1 |
| 5:30 PM | 0 | 0 |
| 5:45 PM | 2 | 1 |
| 6:00 PM | 1 | 1 |
| 6:15 PM | 1 | 2 |
| 6:30 PM | 1 | 1 |
| 6:45 PM | 0 | 0 |
| 7:00 PM | 2 | 1 |
| 7:15 PM | 1 | 1 |
| 7:30 PM | 1 | 3 |
| 7:45 PM | 3 | 1 |
| 8:00 PM | 0 | 0 |
| 8:15 PM | 1 | 1 |
| 8:30 PM | 1 | 0 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 0 | 0 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 1 | 1 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 1 | 0 |
| 10:15 PM | 0 | 2 |
| 10:30 PM | 2 | 0 |
| 10:45 PM | 0 | 1 |
| 11:00 PM | 2 | 0 |
| 11:15 PM | 0 | 0 |
| 11:30 PM | 1 | 1 |
| 11:45 PM | 1 | 0 |
| Totals | 65 | 59 |

Directional Dwy In & Out

Location: Sierra Ave & Windflower Ave
City: Fontana

Date:
Day:

| TIME | FHWA (1-3) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 1 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 0 |
| 1:45 AM | 0 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 0 | 0 |
| 2:30 AM | 0 | 0 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 0 | 0 |
| 4:15 AM | 1 | 0 |
| 4:30 AM | 2 | 1 |
| 4:45 AM | 3 | 0 |
| 5:00 AM | 2 | 0 |
| 5:15 AM | 1 | 0 |
| 5:30 AM | 1 | 0 |
| 5:45 AM | 1 | 0 |
| 6:00 AM | 3 | 0 |
| 6:15 AM | 0 | 1 |
| 6:30 AM | 0 | 0 |
| 6:45 AM | 0 | 0 |
| 7:00 AM | 2 | 1 |
| 7:15 AM | 1 | 1 |
| 7:30 AM | 2 | 1 |
| 7:45 AM | 0 | 0 |
| 8:00 AM | 3 | 4 |
| 8:15 AM | 2 | 1 |
| 8:30 AM | 0 | 0 |
| 8:45 AM | 1 | 0 |
| 9:00 AM | 1 | 1 |
| 9:15 AM | 0 | 0 |
| 9:30 AM | 0 | 0 |
| 9:45 AM | 0 | 0 |
| 10:00 AM | 1 | 1 |
| 10:15 AM | 0 | 0 |
| 10:30 AM | 2 | 0 |
| 10:45 AM | 1 | 0 |
| 11:00 AM | 1 | 2 |
| 11:15 AM | 1 | 1 |
| 11:30 AM | 1 | 1 |
| 11:45 AM | 1 | 1 |
| 12:00 PM | 0 | 0 |
| 12:15 PM | 1 | 1 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 0 |
| 1:00 PM | 1 | 1 |
| 1:15 PM | 1 | 1 |
| 1:30 PM | 1 | 0 |
| 1:45 PM | 0 | 0 |
| 2:00 PM | 0 | 1 |
| 2:15 PM | 1 | 0 |
| 2:30 PM | 1 | 7 |
| 2:45 PM | 1 | 1 |
| 3:00 PM | 1 | 1 |
| 3:15 PM | 0 | 0 |
| 3:30 PM | 0 | 6 |
| 3:45 PM | 1 | 5 |
| 4:00 PM | 0 | 1 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 0 | 0 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 0 | 1 |
| 5:15 PM | 0 | 0 |
| 5:30 PM | 0 | 0 |
| 5:45 PM | 0 | 0 |
| 6:00 PM | 0 | 0 |
| 6:15 PM | 0 | 0 |
| 6:30 PM | 0 | 0 |
| 6:45 PM | 0 | 0 |
| 7:00 PM | 0 | 0 |
| 7:15 PM | 0 | 0 |
| 7:30 PM | 0 | 0 |
| 7:45 PM | 0 | 0 |
| 8:00 PM | 0 | 0 |
| 8:15 PM | 0 | 0 |
| 8:30 PM | 1 | 0 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 0 | 0 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 0 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 0 | 0 |
| 10:15 PM | 0 | 0 |
| 10:30 PM | 0 | 0 |
| 10:45 PM | 0 | 1 |
| 11:00 PM | 0 | 1 |
| 11:15 PM | 0 | 0 |
| 11:30 PM | 0 | 0 |
| 11:45 PM | 0 | 0 |
| Totals | 46 | 47 |

| TIME | FHWA (4-7) | |
|---------------|------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 0 |
| 12:15 AM | 1 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 0 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 0 | 1 |
| 1:45 AM | 1 | 1 |
| 2:00 AM | 1 | 1 |
| 2:15 AM | 1 | 1 |
| 2:30 AM | 1 | 1 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 1 | 0 |
| 4:00 AM | 0 | 1 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 0 |
| 4:45 AM | 0 | 0 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 0 |
| 5:45 AM | 1 | 1 |
| 6:00 AM | 1 | 1 |
| 6:15 AM | 0 | 0 |
| 6:30 AM | 1 | 1 |
| 6:45 AM | 2 | 2 |
| 7:00 AM | 1 | 1 |
| 7:15 AM | 1 | 1 |
| 7:30 AM | 1 | 1 |
| 7:45 AM | 4 | 0 |
| 8:00 AM | 2 | 0 |
| 8:15 AM | 1 | 1 |
| 8:30 AM | 3 | 2 |
| 8:45 AM | 3 | 0 |
| 9:00 AM | 2 | 1 |
| 9:15 AM | 2 | 1 |
| 9:30 AM | 2 | 1 |
| 9:45 AM | 1 | 1 |
| 10:00 AM | 2 | 0 |
| 10:15 AM | 0 | 1 |
| 10:30 AM | 2 | 2 |
| 10:45 AM | 2 | 1 |
| 11:00 AM | 1 | 3 |
| 11:15 AM | 1 | 0 |
| 11:30 AM | 0 | 2 |
| 11:45 AM | 1 | 1 |
| 12:00 PM | 1 | 1 |
| 12:15 PM | 1 | 1 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 0 | 1 |
| 1:00 PM | 1 | 0 |
| 1:15 PM | 3 | 1 |
| 1:30 PM | 2 | 2 |
| 1:45 PM | 2 | 0 |
| 2:00 PM | 1 | 2 |
| 2:15 PM | 1 | 2 |
| 2:30 PM | 0 | 1 |
| 2:45 PM | 1 | 0 |
| 3:00 PM | 1 | 3 |
| 3:15 PM | 1 | 0 |
| 3:30 PM | 0 | 0 |
| 3:45 PM | 1 | 1 |
| 4:00 PM | 0 | 0 |
| 4:15 PM | 1 | 1 |
| 4:30 PM | 0 | 0 |
| 4:45 PM | 0 | 1 |
| 5:00 PM | 1 | 0 |
| 5:15 PM | 1 | 1 |
| 5:30 PM | 1 | 0 |
| 5:45 PM | 1 | 1 |
| 6:00 PM | 0 | 1 |
| 6:15 PM | 1 | 1 |
| 6:30 PM | 2 | 1 |
| 6:45 PM | 1 | 2 |
| 7:00 PM | 0 | 2 |
| 7:15 PM | 1 | 1 |
| 7:30 PM | 0 | 2 |
| 7:45 PM | 1 | 0 |
| 8:00 PM | 1 | 2 |
| 8:15 PM | 1 | 1 |
| 8:30 PM | 0 | 1 |
| 8:45 PM | 0 | 0 |
| 9:00 PM | 1 | 1 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 0 | 1 |
| 9:45 PM | 0 | 1 |
| 10:00 PM | 1 | 1 |
| 10:15 PM | 0 | 1 |
| 10:30 PM | 0 | 1 |
| 10:45 PM | 1 | 1 |
| 11:00 PM | 0 | 1 |
| 11:15 PM | 1 | 1 |
| 11:30 PM | 0 | 1 |
| 11:45 PM | 1 | 1 |
| Totals | 78 | 76 |

| TIME | FHWA (8-13) | |
|---------------|-------------|-----------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 1 |
| 12:15 AM | 0 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 1 |
| 1:00 AM | 0 | 0 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 1 | 0 |
| 1:45 AM | 1 | 0 |
| 2:00 AM | 0 | 0 |
| 2:15 AM | 1 | 0 |
| 2:30 AM | 1 | 1 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 0 | 0 |
| 4:00 AM | 1 | 1 |
| 4:15 AM | 0 | 0 |
| 4:30 AM | 0 | 0 |
| 4:45 AM | 0 | 0 |
| 5:00 AM | 0 | 0 |
| 5:15 AM | 0 | 0 |
| 5:30 AM | 0 | 0 |
| 5:45 AM | 1 | 1 |
| 6:00 AM | 1 | 0 |
| 6:15 AM | 1 | 0 |
| 6:30 AM | 1 | 1 |
| 6:45 AM | 1 | 1 |
| 7:00 AM | 0 | 0 |
| 7:15 AM | 2 | 1 |
| 7:30 AM | 1 | 1 |
| 7:45 AM | 0 | 2 |
| 8:00 AM | 1 | 2 |
| 8:15 AM | 1 | 3 |
| 8:30 AM | 0 | 1 |
| 8:45 AM | 0 | 3 |
| 9:00 AM | 0 | 2 |
| 9:15 AM | 2 | 4 |
| 9:30 AM | 1 | 1 |
| 9:45 AM | 0 | 1 |
| 10:00 AM | 1 | 2 |
| 10:15 AM | 2 | 1 |
| 10:30 AM | 1 | 1 |
| 10:45 AM | 1 | 1 |
| 11:00 AM | 1 | 0 |
| 11:15 AM | 2 | 1 |
| 11:30 AM | 1 | 1 |
| 11:45 AM | 1 | 1 |
| 12:00 PM | 2 | 1 |
| 12:15 PM | 1 | 2 |
| 12:30 PM | 1 | 1 |
| 12:45 PM | 1 | 1 |
| 1:00 PM | 1 | 2 |
| 1:15 PM | 2 | 2 |
| 1:30 PM | 1 | 1 |
| 1:45 PM | 0 | 1 |
| 2:00 PM | 2 | 2 |
| 2:15 PM | 2 | 3 |
| 2:30 PM | 0 | 0 |
| 2:45 PM | 2 | 1 |
| 3:00 PM | 0 | 0 |
| 3:15 PM | 0 | 1 |
| 3:30 PM | 0 | 0 |
| 3:45 PM | 0 | 1 |
| 4:00 PM | 1 | 0 |
| 4:15 PM | 0 | 0 |
| 4:30 PM | 2 | 1 |
| 4:45 PM | 0 | 0 |
| 5:00 PM | 2 | 1 |
| 5:15 PM | 1 | 1 |
| 5:30 PM | 0 | 1 |
| 5:45 PM | 2 | 1 |
| 6:00 PM | 1 | 1 |
| 6:15 PM | 2 | 1 |
| 6:30 PM | 1 | 1 |
| 6:45 PM | 1 | 0 |
| 7:00 PM | 1 | 1 |
| 7:15 PM | 1 | 1 |
| 7:30 PM | 2 | 2 |
| 7:45 PM | 1 | 1 |
| 8:00 PM | 2 | 1 |
| 8:15 PM | 1 | 0 |
| 8:30 PM | 1 | 1 |
| 8:45 PM | 1 | 0 |
| 9:00 PM | 1 | 1 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 1 | 1 |
| 9:45 PM | 0 | 0 |
| 10:00 PM | 1 | 0 |
| 10:15 PM | 0 | 1 |
| 10:30 PM | 1 | 0 |
| 10:45 PM | 0 | 0 |
| 11:00 PM | 1 | 0 |
| 11:15 PM | 1 | 1 |
| 11:30 PM | 0 | 1 |
| 11:45 PM | 1 | 0 |
| Totals | 73 | 75 |

| TIME | PCE | |
|---------------|------------|------------|
| | Dwy In | Dwy Out |
| | NR | WR |
| 12:00 AM | 0 | 3 |
| 12:15 AM | 4 | 0 |
| 12:30 AM | 0 | 0 |
| 12:45 AM | 0 | 3 |
| 1:00 AM | 0 | 1 |
| 1:15 AM | 0 | 0 |
| 1:30 AM | 3 | 3 |
| 1:45 AM | 6 | 3 |
| 2:00 AM | 3 | 3 |
| 2:15 AM | 6 | 3 |
| 2:30 AM | 6 | 6 |
| 2:45 AM | 0 | 0 |
| 3:00 AM | 0 | 0 |
| 3:15 AM | 0 | 0 |
| 3:30 AM | 0 | 0 |
| 3:45 AM | 3 | 0 |
| 4:00 AM | 3 | 6 |
| 4:15 AM | 1 | 0 |
| 4:30 AM | 2 | 1 |
| 4:45 AM | 3 | 0 |
| 5:00 AM | 2 | 0 |
| 5:15 AM | 1 | 0 |
| 5:30 AM | 1 | 0 |
| 5:45 AM | 7 | 6 |
| 6:00 AM | 9 | 3 |
| 6:15 AM | 3 | 1 |
| 6:30 AM | 6 | 6 |
| 6:45 AM | 8 | 8 |
| 7:00 AM | 5 | 4 |
| 7:15 AM | 10 | 7 |
| 7:30 AM | 8 | 7 |
| 7:45 AM | 10 | 6 |
| 8:00 AM | 11 | 10 |
| 8:15 AM | 8 | 13 |
| 8:30 AM | 8 | 8 |
| 8:45 AM | 9 | 9 |
| 9:00 AM | 6 | 10 |
| 9:15 AM | 11 | 15 |
| 9:30 AM | 8 | 6 |
| 9:45 AM | 3 | 6 |
| 10:00 AM | 9 | 7 |
| 10:15 AM | 6 | 6 |
| 10:30 AM | 10 | 8 |
| 10:45 AM | 9 | 6 |
| 11:00 AM | 7 | 10 |
| 11:15 AM | 10 | 4 |
| 11:30 AM | 4 | 9 |
| 11:45 AM | 7 | 7 |
| 12:00 PM | 9 | 6 |
| 12:15 PM | 7 | 10 |
| 12:30 PM | 7 | 7 |
| 12:45 PM | 3 | 6 |
| 1:00 PM | 7 | 7 |
| 1:15 PM | 15 | 10 |
| 1:30 PM | 9 | 8 |
| 1:45 PM | 5 | 3 |
| 2:00 PM | 9 | 12 |
| 2:15 PM | 10 | 14 |
| 2:30 PM | 1 | 10 |
| 2:45 PM | 10 | 4 |
| 3:00 PM | 4 | 9 |
| 3:15 PM | 3 | 3 |
| 3:30 PM | 0 | 6 |
| 3:45 PM | 4 | 11 |
| 4:00 PM | 3 | 1 |
| 4:15 PM | 3 | 3 |
| 4:30 PM | 6 | 3 |
| 4:45 PM | 0 | 3 |
| 5:00 PM | 9 | 4 |
| 5:15 PM | 6 | 6 |
| 5:30 PM | 3 | 3 |
| 5:45 PM | 9 | 6 |
| 6:00 PM | 3 | 6 |
| 6:15 PM | 9 | 6 |
| 6:30 PM | 8 | 6 |
| 6:45 PM | 6 | 5 |
| 7:00 PM | 3 | 8 |
| 7:15 PM | 6 | 6 |
| 7:30 PM | 6 | 11 |
| 7:45 PM | 6 | 3 |
| 8:00 PM | 9 | 8 |
| 8:15 PM | 6 | 3 |
| 8:30 PM | 4 | 6 |
| 8:45 PM | 3 | 0 |
| 9:00 PM | 6 | 6 |
| 9:15 PM | 0 | 0 |
| 9:30 PM | 3 | 6 |
| 9:45 PM | 0 | 3 |
| 10:00 PM | 6 | 3 |
| 10:15 PM | 0 | 6 |
| 10:30 PM | 3 | 3 |
| 10:45 PM | 3 | 4 |
| 11:00 PM | 3 | 4 |
| 11:15 PM | 6 | 6 |
| 11:30 PM | 0 | 6 |
| 11:45 PM | 6 | 3 |
| Totals | 483 | 487 |

ATTACHMENT C

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

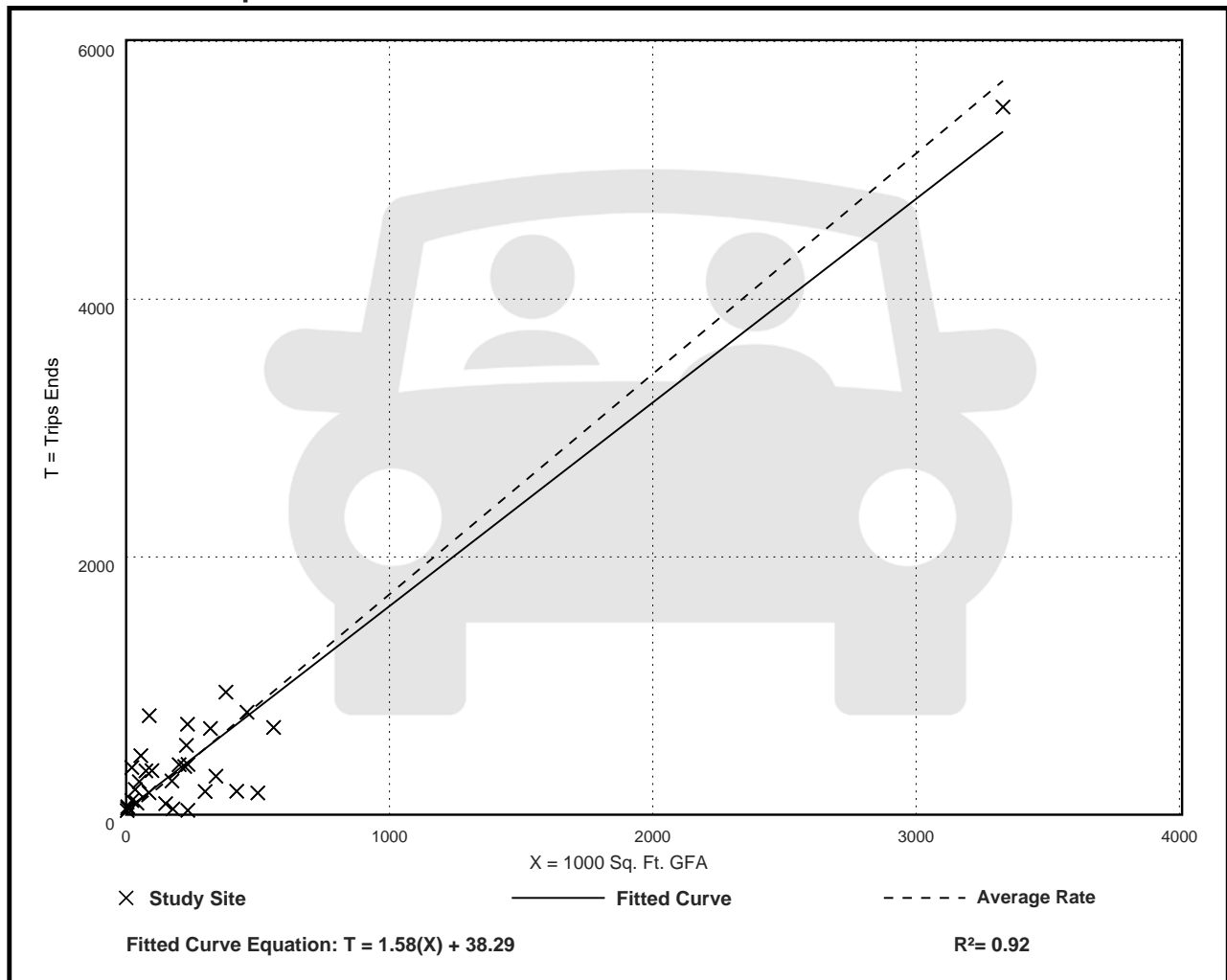
Avg. 1000 Sq. Ft. GFA: 292

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

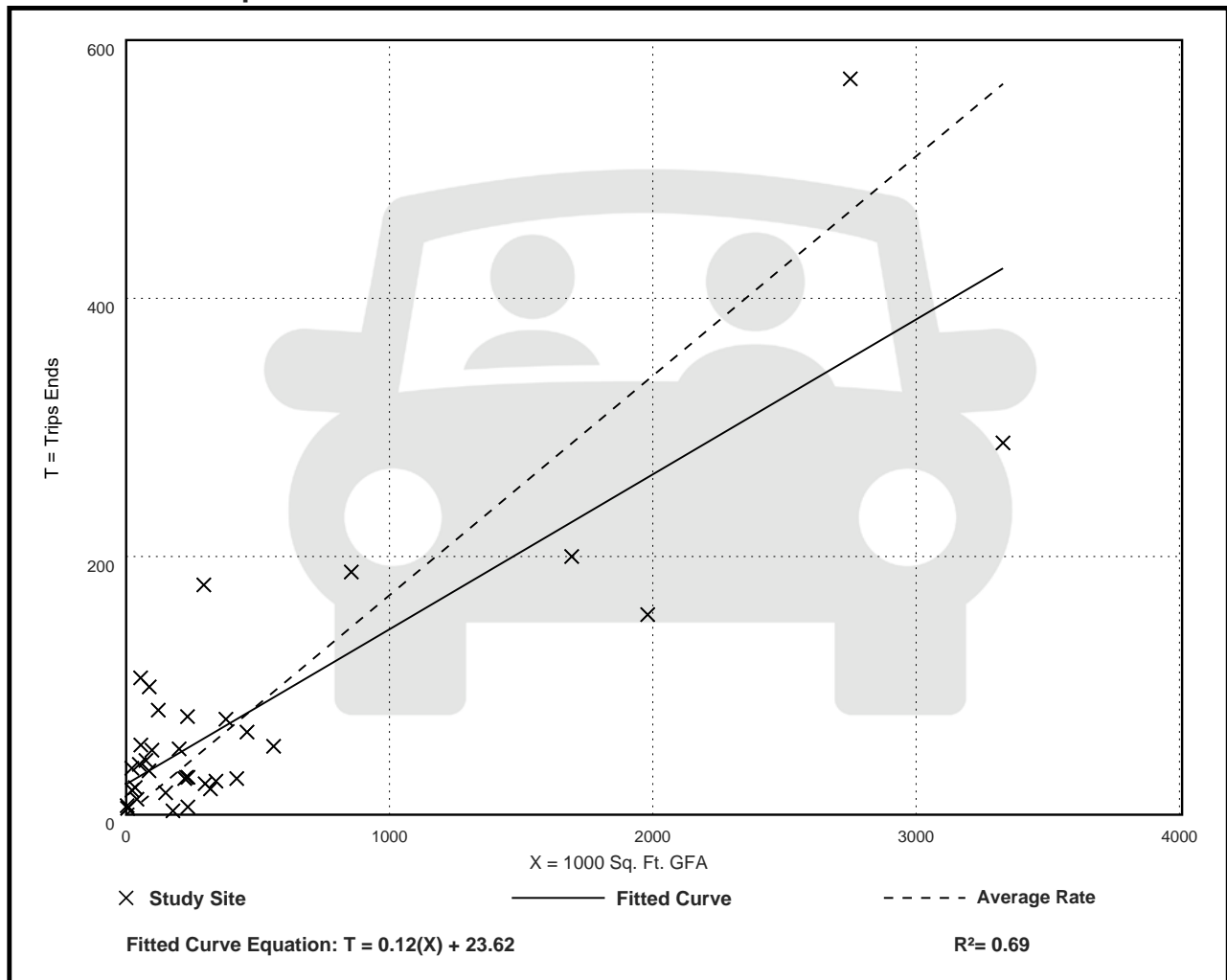
Avg. 1000 Sq. Ft. GFA: 448

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



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

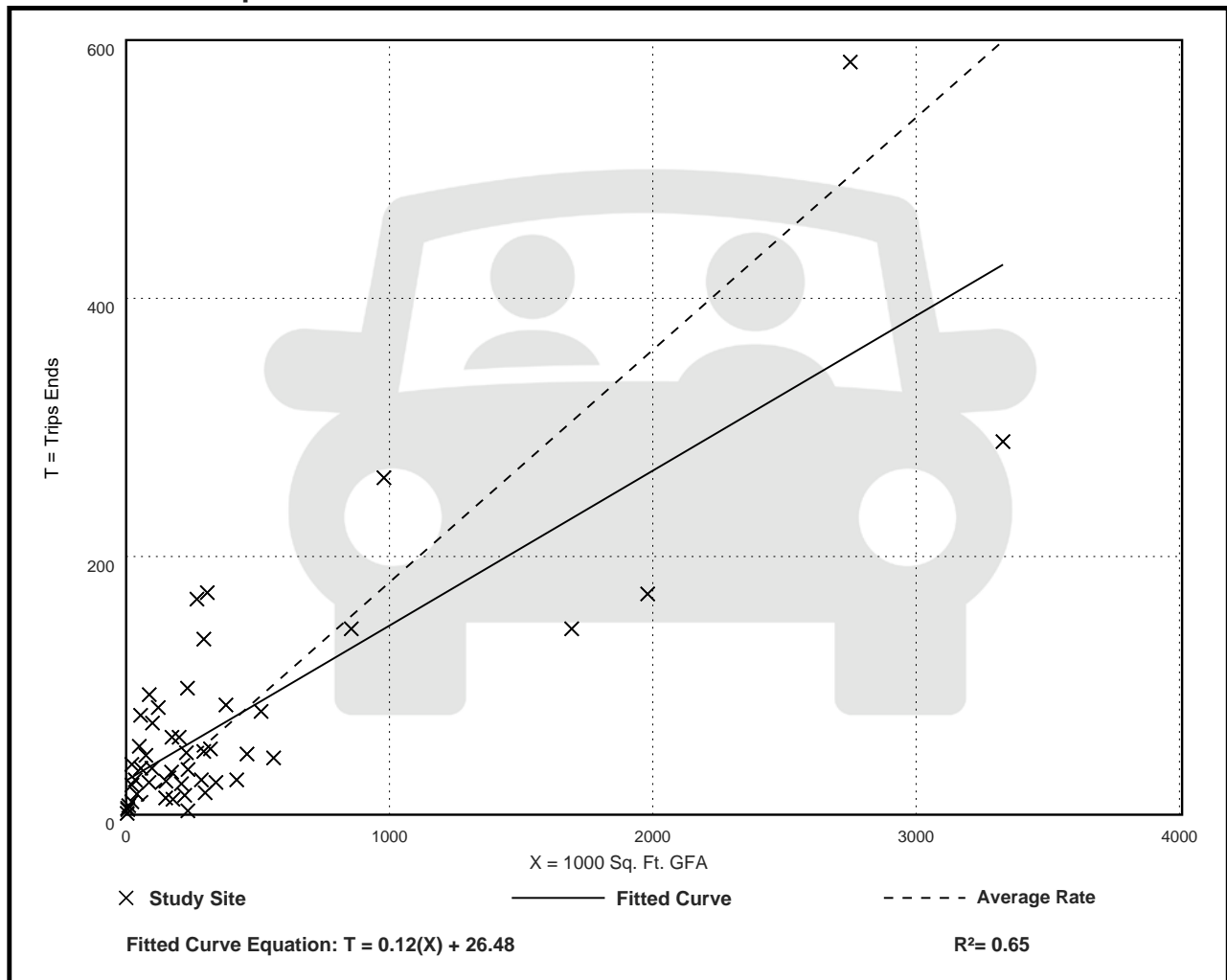
Avg. 1000 Sq. Ft. GFA: 400

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



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

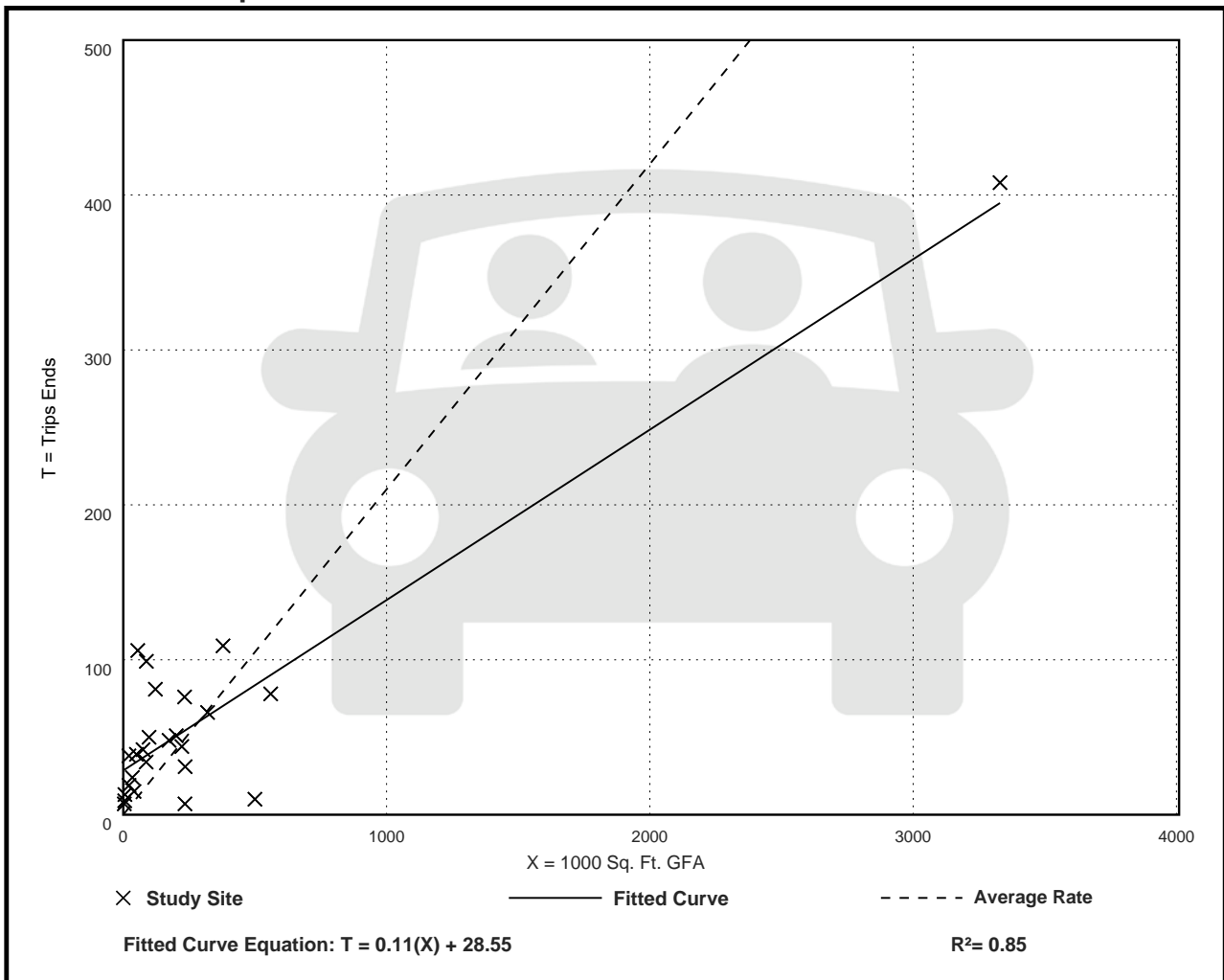
Avg. 1000 Sq. Ft. GFA: 284

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

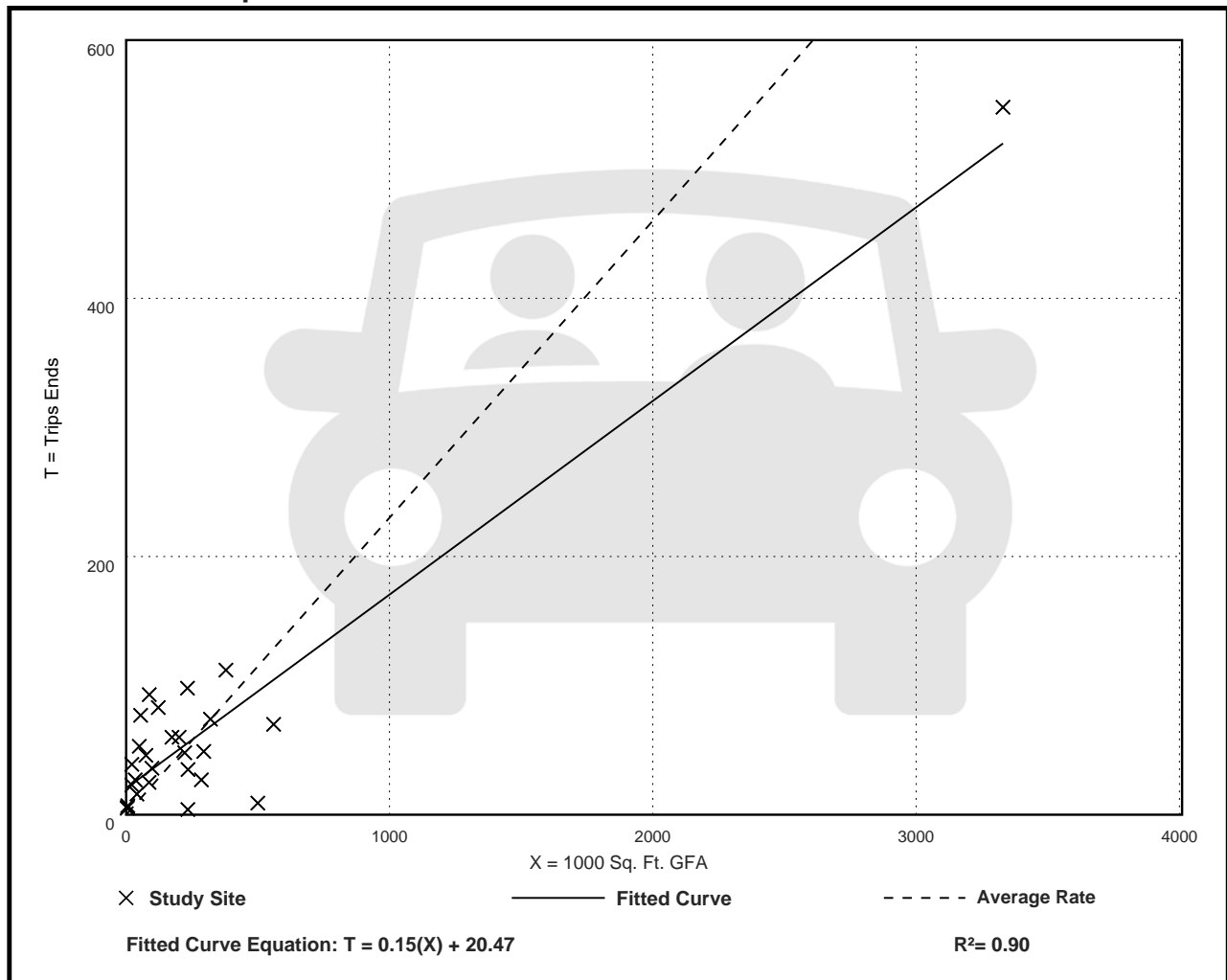
Avg. 1000 Sq. Ft. GFA: 284

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



Warehousing (150)

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

Setting/Location: General Urban/Suburban

Number of Studies: 12

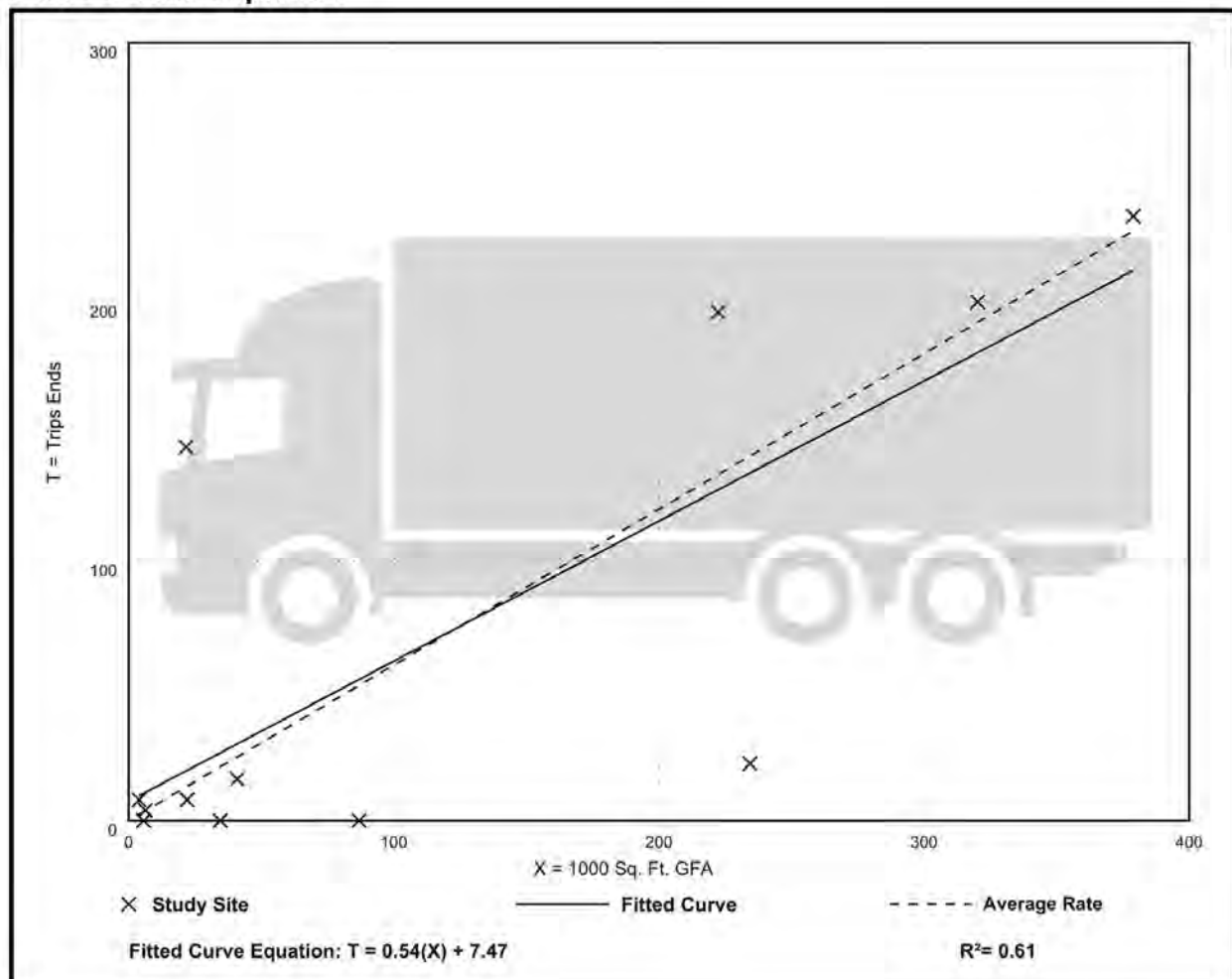
Avg. 1000 Sq. Ft. GFA: 115

Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.60 | 0.00 - 6.66 | 0.86 |

Data Plot and Equation



Warehousing (150)

Truck 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: 21

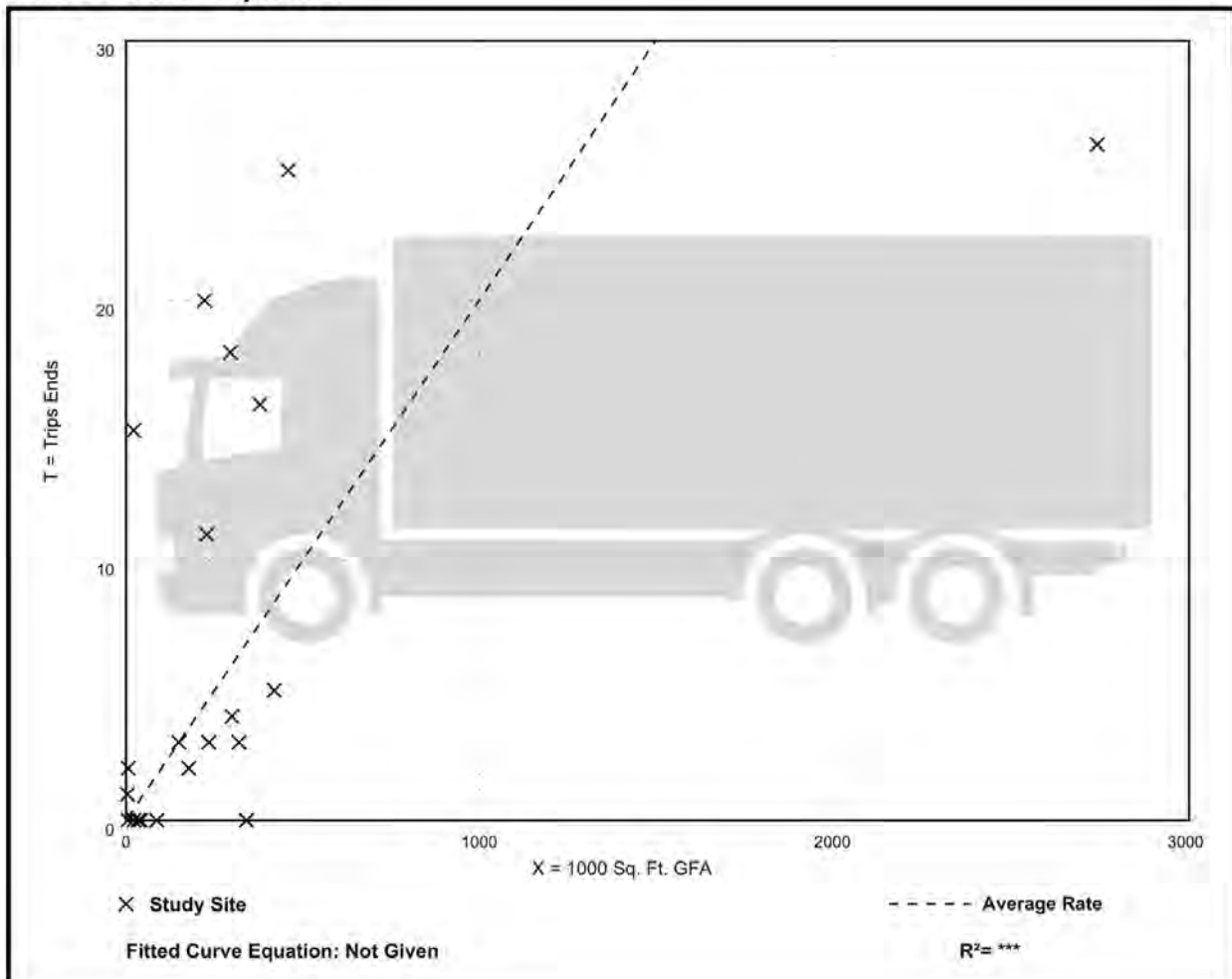
Avg. 1000 Sq. Ft. GFA: 309

Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.02 | 0.00 - 0.69 | 0.05 |

Data Plot and Equation



Warehousing (150)

Truck 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: 23

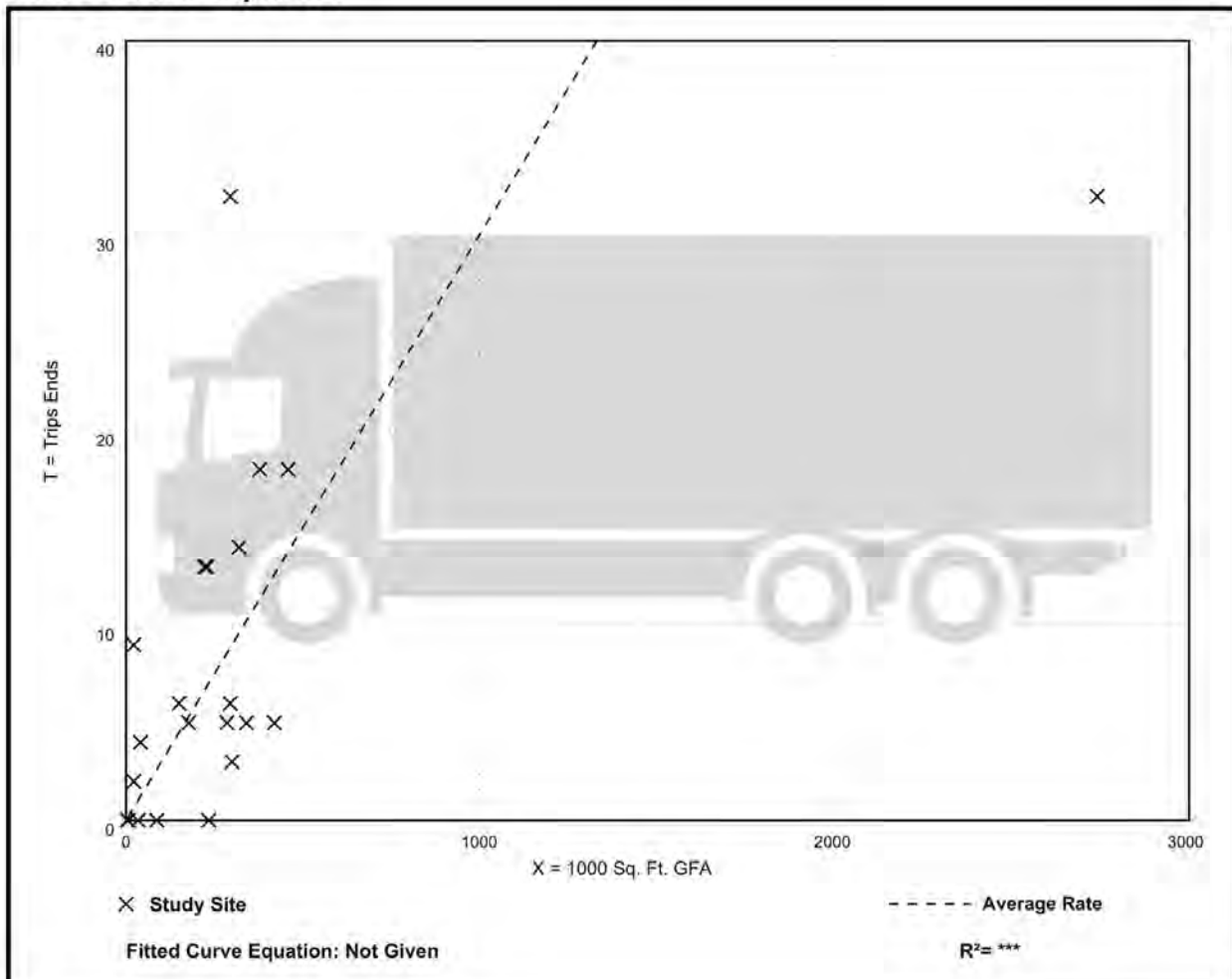
Avg. 1000 Sq. Ft. GFA: 308

Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.03 | 0.00 - 0.42 | 0.03 |

Data Plot and Equation



Warehousing (150)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 12

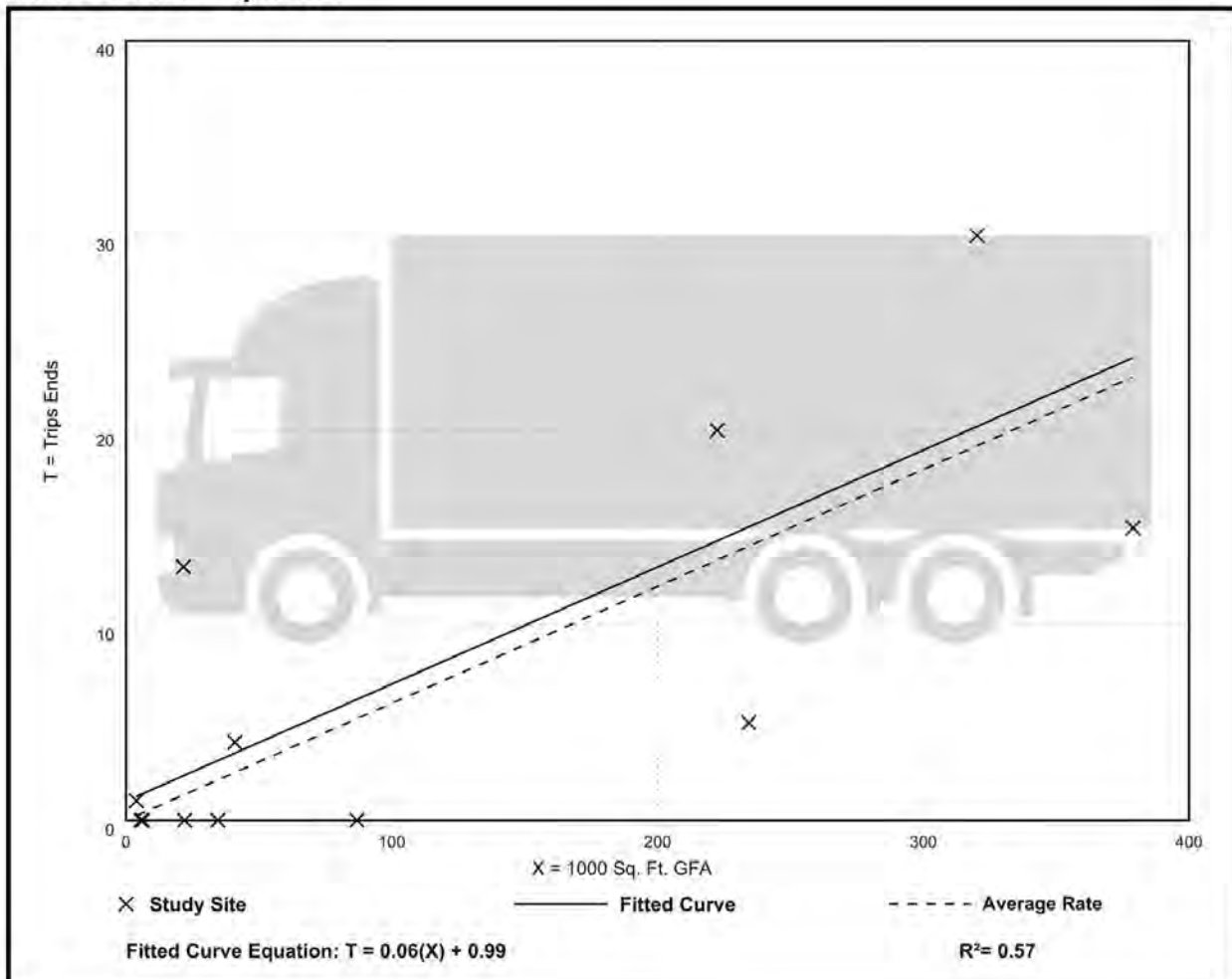
Avg. 1000 Sq. Ft. GFA: 115

Directional Distribution: 35% entering, 65% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.06 | 0.00 - 0.60 | 0.08 |

Data Plot and Equation



Warehousing (150)

Truck Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 12

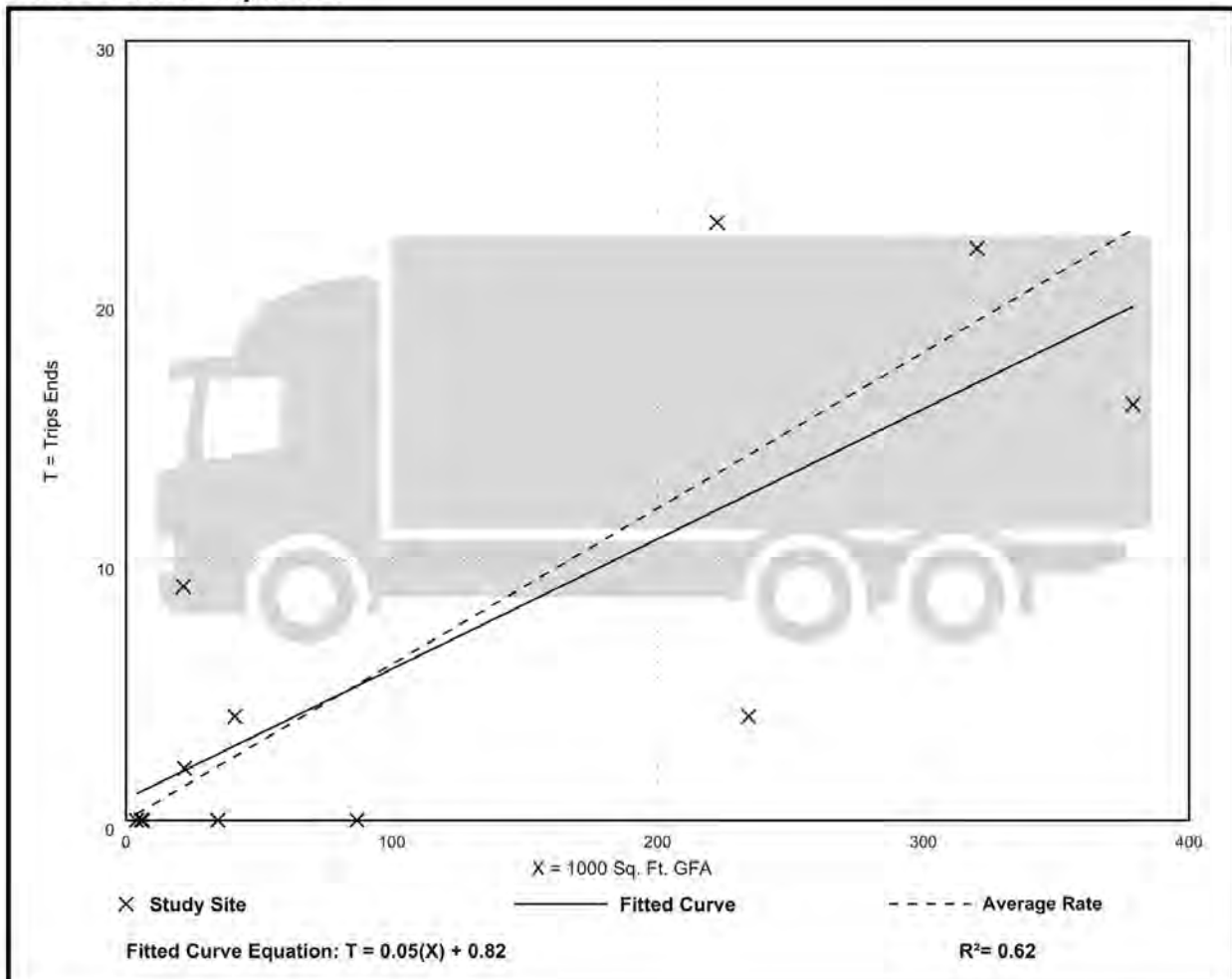
Avg. 1000 Sq. Ft. GFA: 115

Directional Distribution: 53% entering, 47% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.06 | 0.00 - 0.42 | 0.06 |

Data Plot and Equation





VEHICLE MIX AND ENTER/EXIT SPLITS BY LAND USE CATEGORY

Classification: Light Warehouse

| | | Recommended Large Truck Mix (%) | | | | | | | | |
|-------|-------------|---------------------------------|-------------------|------------------|-------------|------------|-------------------|------------------|--|--|
| | | Lge 2 Ax | 3 Axle | 4+ Axle | Total | | | | | |
| | | 24.7 | 20.6 | 54.6 | 100.0 | | | | | |
| | | Pass Veh | Lge 2 Ax | 3 Axle | 4+ Axle | Total | | | | |
| | | 80.3 | 5.2 | 4.5 | 10.0 | 100.0 | | | | |
| | | Site Entering & Exiting | | | | | | | | |
| | | a.m. | | | | p.m. | | | | |
| Split | Total Enter | Total Exit | Large Truck Enter | Large Truck Exit | Total Enter | Total Exit | Large Truck Enter | Large Truck Exit | | |
| | 73.97 | 26.03 | 62.07 | 37.93 | 23.81 | 76.19 | 45.45 | 54.55 | | |
| | | Street Entering & Exiting | | | | | | | | |
| | | a.m. | | | | p.m. | | | | |
| Split | Total Enter | Total Exit | Large Truck Enter | Large Truck Exit | Total Enter | Total Exit | Large Truck Enter | Large Truck Exit | | |
| | 73.77 | 26.23 | 65.22 | 34.78 | 20.00 | 80.00 | 31.58 | 68.42 | | |

**Land Use Code 154
Table
Cajon Creek Trip Generation Summary**

| Land Use | Land Use as listed in ITE | ITE Land Use Code | Units ¹ | Trip Rate ² | Daily Trips | AM Peak-Hour | | | | | PM Peak-Hour | | | | | |
|------------------------------------|---------------------------------------|-------------------|--------------------|------------------------|-------------|-----------------------|---------------------------|-------------|-----|-------|-----------------------|---------------------------|-------------|-----|-------|---|
| | | | | | | % of ADT ² | In:Out Ratio ² | In | Out | Total | % of ADT ² | In:Out Ratio ² | In | Out | Total | |
| Driveway Trips³ | | | | | | | | | | | | | | | | |
| Proposed Vehicles | | | | | | | | | | | | | | | | |
| Warehouse | High-Cube Transload and Short-Term St | 154 | 398 ksf | 1.4 / ksf | 557 | 6% | 0.77 : 0.23 | 25 | 7 | 32 | 7% | 0.28 : 0.72 | 11 | 29 | 40 | |
| Subtotal | | | | | 557 | 25 7 32 | | | | | 11 29 40 | | | | | |
| Proposed Passenger Vehicles | | | | | | | | | | | | | | | | |
| Warehouse | General Light Industrial | 154 | 398 ksf | 1.15 / ksf | 458 | 6% | 0.82 : 0.18 | 23 | 5 | 28 | 8% | 0.25 : 0.75 | 9 | 27 | 36 | |
| Proposed Trucks | | | | | | | | | | | | | | | | |
| Warehouse | General Light Industrial | 154 | 398 ksf | 0.25 / ksf | 100 | 4% | 0.60 : 0.40 | 2 | 2 | 4 | 4% | 0.50 : 0.50 | 2 | 2 | 4 | |
| Truck Breakdown | | | | | | | | | | | | | | | | |
| Truck Type | Truck Mix ⁴ | | | | | | | | | | | | | | | |
| 2 Axle | 33% | | | | | 33 | 4% | 0.60 : 0.40 | 1 | 1 | 1 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 3 Axle | 18% | | | | | 18 | 4% | 0.60 : 0.40 | 0 | 0 | 1 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 4 Axle | 49% | | | | | 49 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| Truck Subtotal | | | | | 100 | 2 2 4 | | | | | 3 3 6 | | | | | |
| PCE Breakdown | | | | | | | | | | | | | | | | |
| Truck Type | Passenger Car Equivalent Rate | | | | | | | | | | | | | | | |
| 2 Axle | 2 | | | | | 66 | 4% | 0.60 : 0.40 | 2 | 1 | 3 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 3 Axle | 2.5 | | | | | 45 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 4 Axle | 3 | | | | | 147 | 4% | 0.60 : 0.40 | 4 | 2 | 6 | 4% | 0.50 : 0.50 | 3 | 3 | 6 |
| Truck Subtotal (PCE) | | | | | 258 | 6 4 10 | | | | | 5 5 10 | | | | | |
| NET TRIP GENERATION = | | | | | 716 | 29 9 38 | | | | | 14 32 46 | | | | | |

Note:

1. ksf = Thousand Square Feet
2. Trip rates references from ITE Trip Generation, 11th Edition.
3. Driveway trips are the total number of trips generated by a site.
4. Per San Bernardino Traffic Study Guidelines, Truck Mixes based on Fontana Study (Light Industrial land use), and PCES from San Bernardino City Traffic Study Guidelines

Land Use: 154

High-Cube Transload and Short-Term Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

The HCWs included in this land use include transload and short-term storage facilities. A transload facility has the primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. A transload facility typically has little storage duration, high throughput, and its operations are high efficiency. A short-term HCW is a distribution facility often with custom/special features built into the structure for the movement of large volumes of freight with only short-term storage of products.

Some limited assembly and repackaging may occur within the facility.

A high-cube warehouse may contain a mezzanine. In a HCW setting, a mezzanine is a free-standing, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within a HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

Warehousing (Land Use 150), 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 land uses.

The number of dock doors at a HCW is a potential independent variable. Future data submissions should include that information.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled “High-Cube Warehouse Vehicle Trip Generation Analysis,” published in October 2016. The results of this study are posted on the ITE website at <http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498>.

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 2000s, and the 2010s in Alberta (CAN), California, Florida, Michigan, New Jersey, Texas, and Washington.

Source Numbers

331, 605, 619, 642, 645, 649, 739, 750, 752, 903, 904, 941, 942, 943, 969

High-Cube Transload and Short-Term Storage Warehouse (154)

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

Setting/Location: General Urban/Suburban

Number of Studies: 91

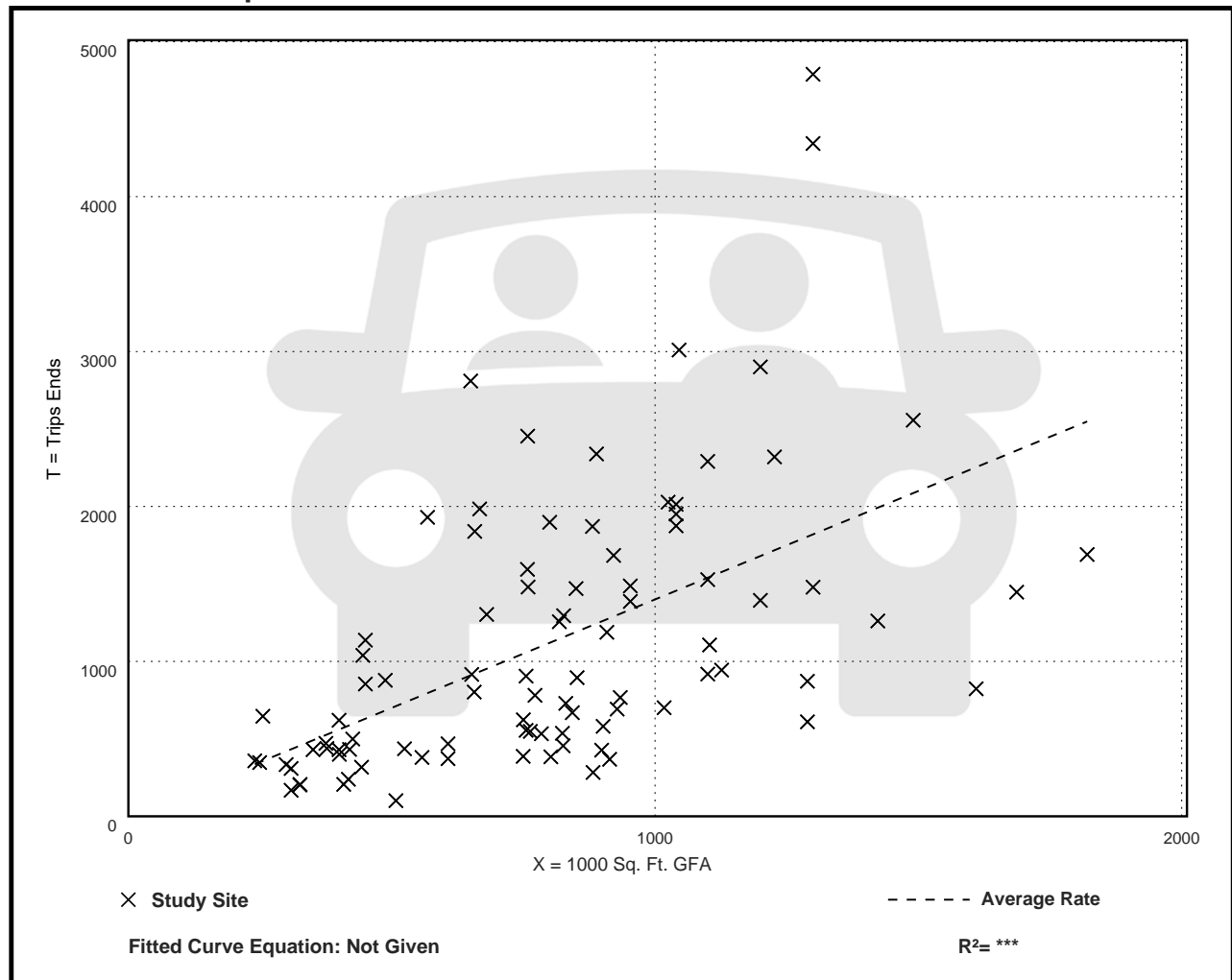
Avg. 1000 Sq. Ft. GFA: 798

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 1.40 | 0.20 - 4.32 | 0.86 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

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: 102

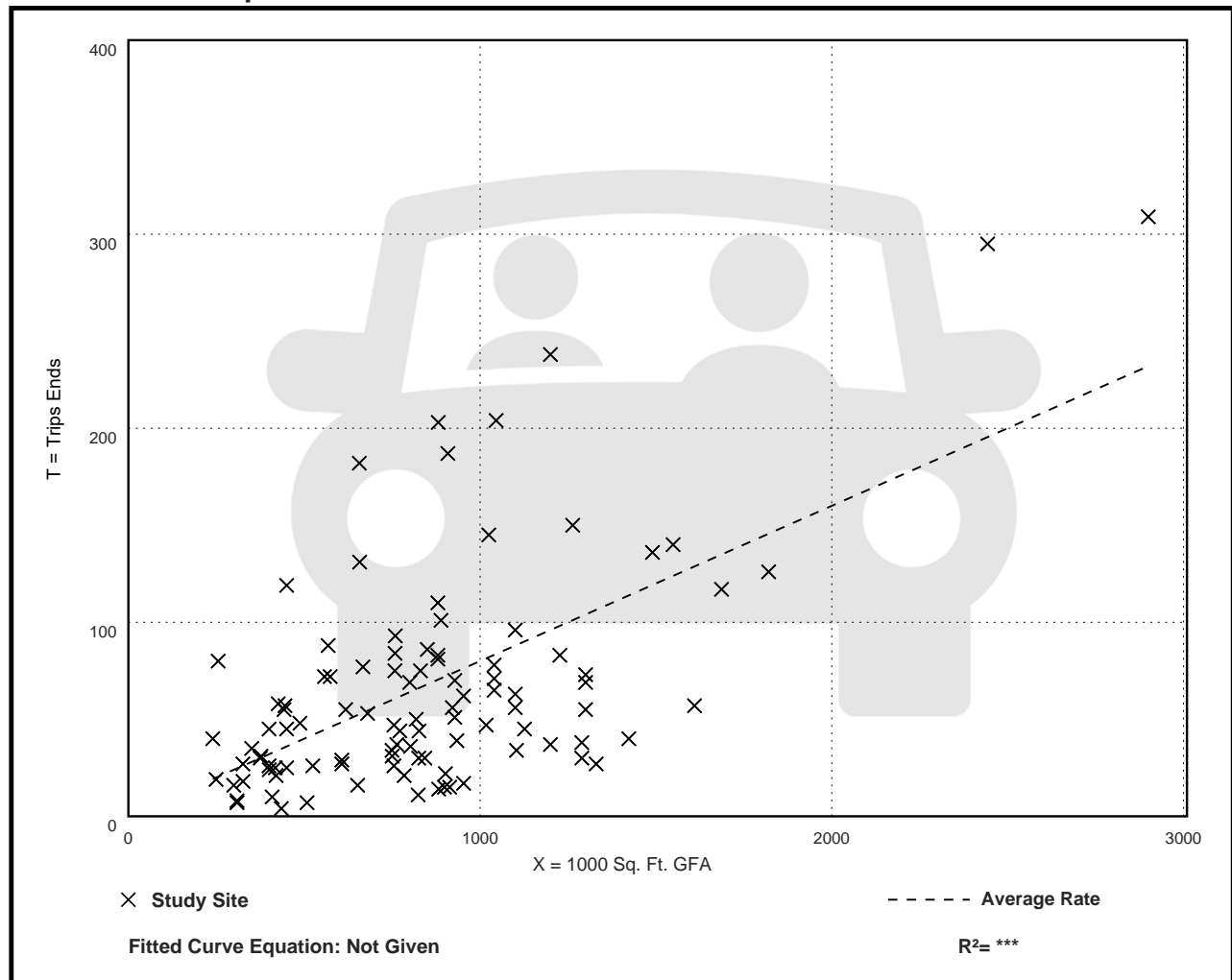
Avg. 1000 Sq. Ft. GFA: 846

Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.08 | 0.01 - 0.31 | 0.05 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

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: 103

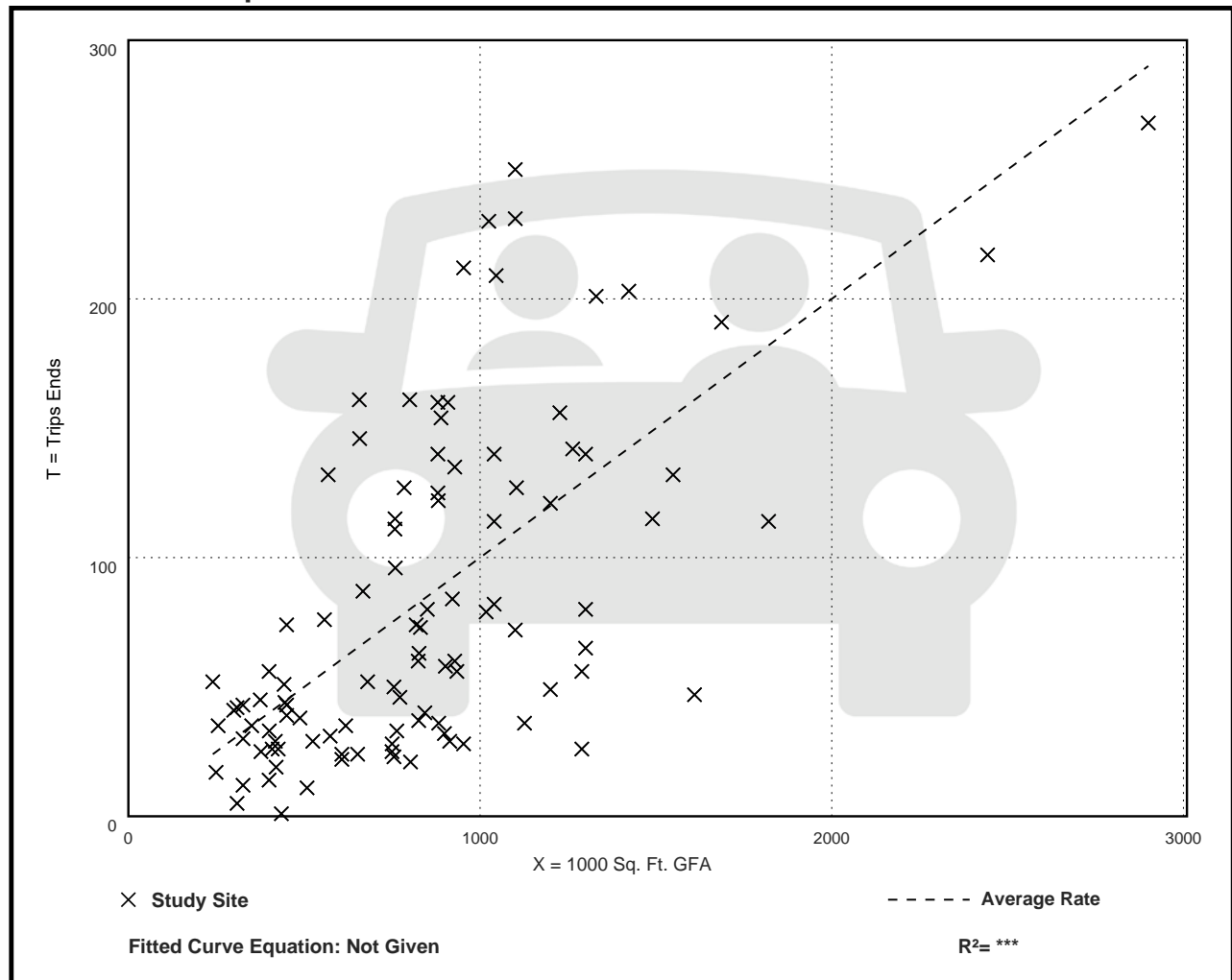
Avg. 1000 Sq. Ft. GFA: 840

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.10 | 0.00 - 0.25 | 0.06 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 31

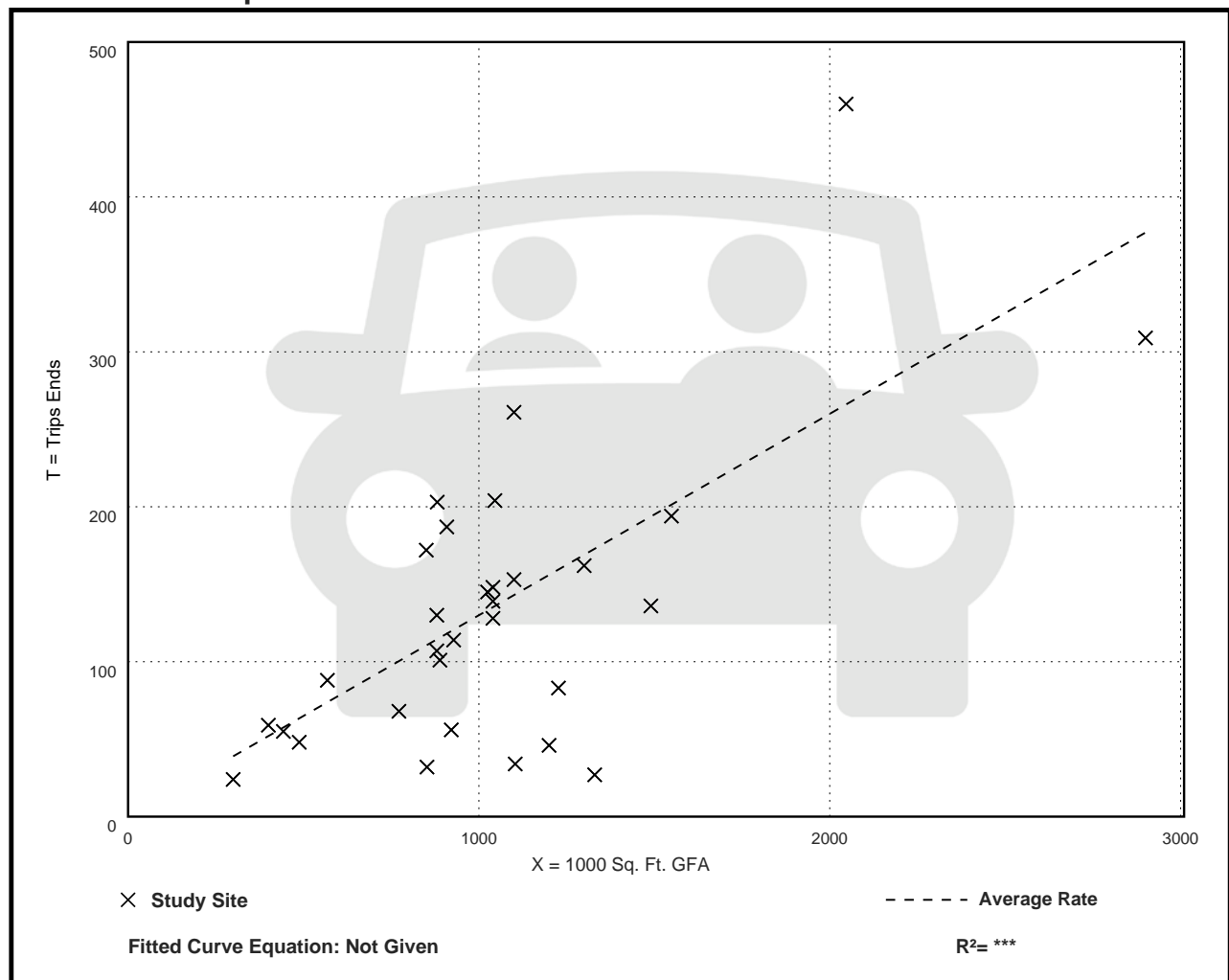
Avg. 1000 Sq. Ft. GFA: 1048

Directional Distribution: 78% entering, 22% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.13 | 0.02 - 0.24 | 0.06 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 34

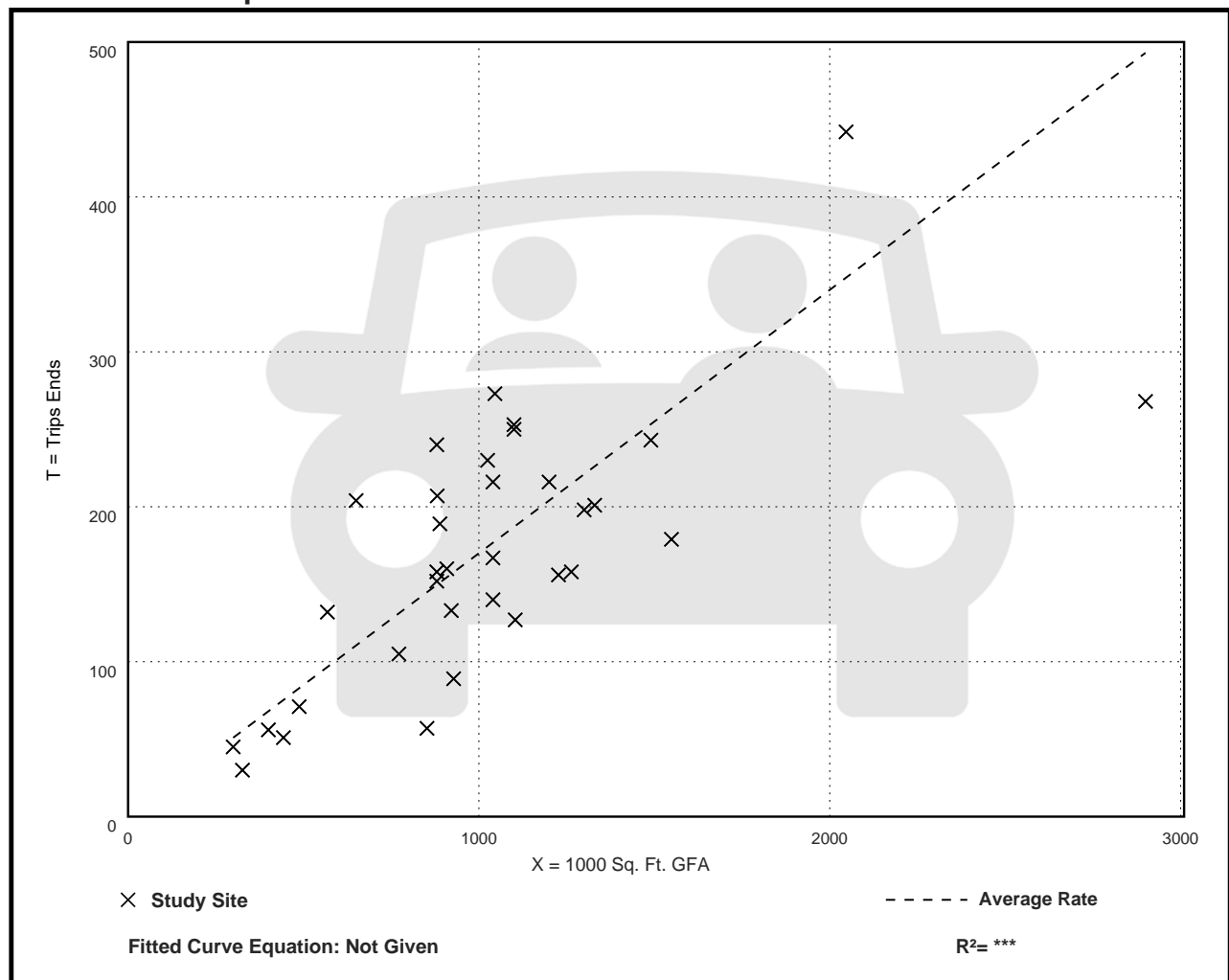
Avg. 1000 Sq. Ft. GFA: 1023

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.17 | 0.07 - 0.31 | 0.06 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

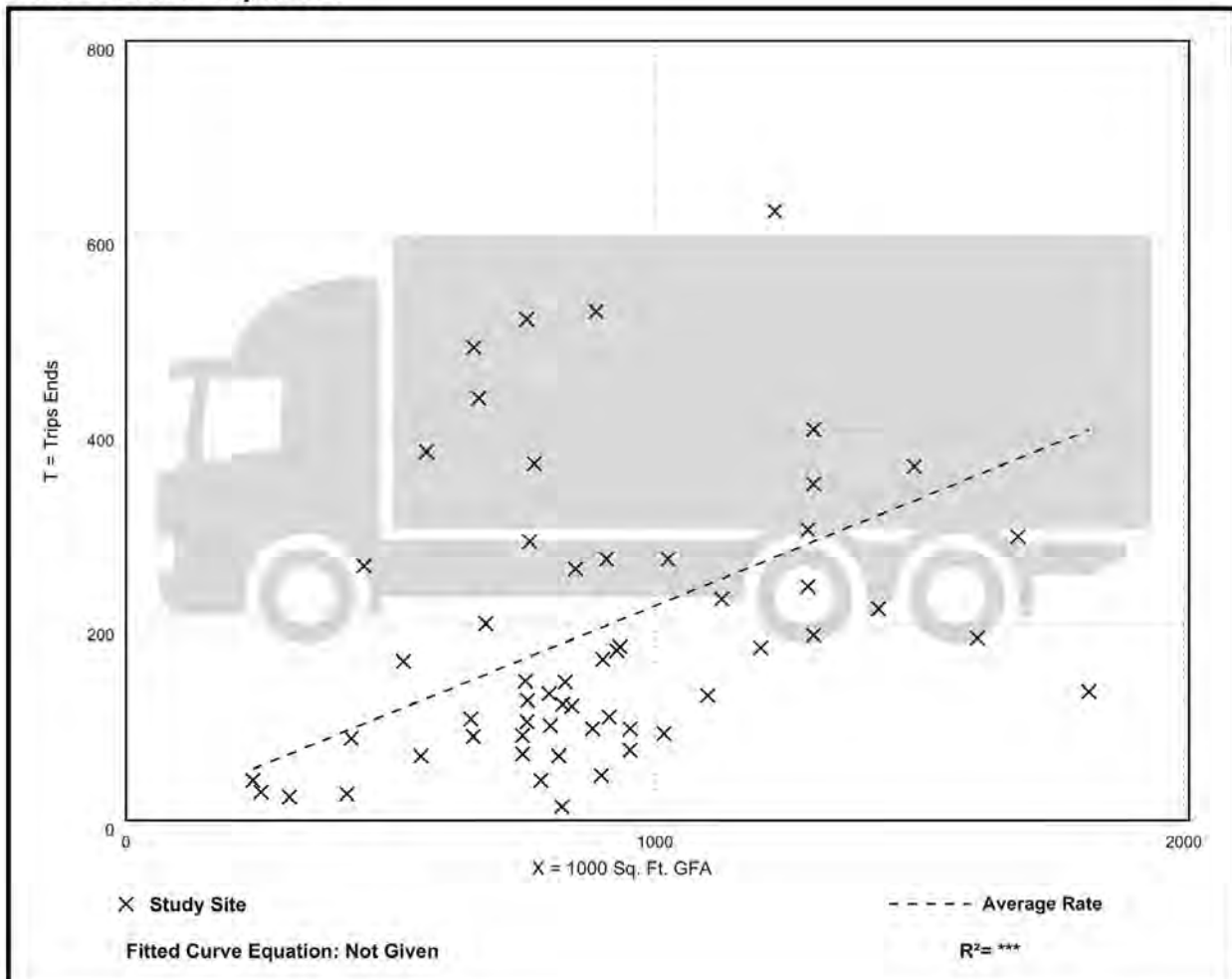
Truck Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday

Setting/Location: General Urban/Suburban
 Number of Studies: 57
 Avg. 1000 Sq. Ft. GFA: 892
 Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.22 | 0.02 - 0.74 | 0.16 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Truck 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: 90

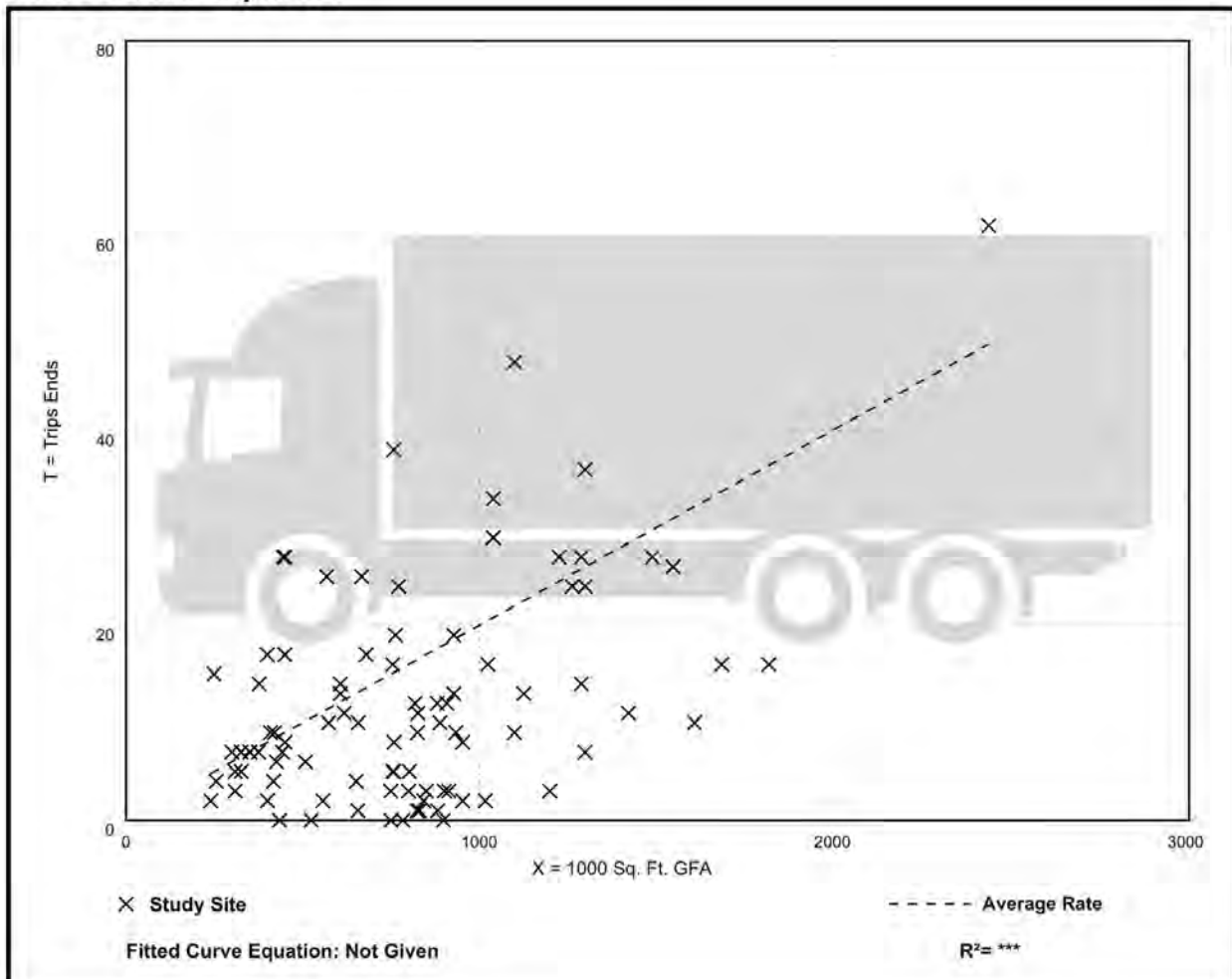
Avg. 1000 Sq. Ft. GFA: 812

Directional Distribution: 49% entering, 51% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.02 | 0.00 - 0.06 | 0.01 |

Data Plot and Equation



High-Cube Transload and Short-Term Storage Warehouse (154)

Truck 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: 91

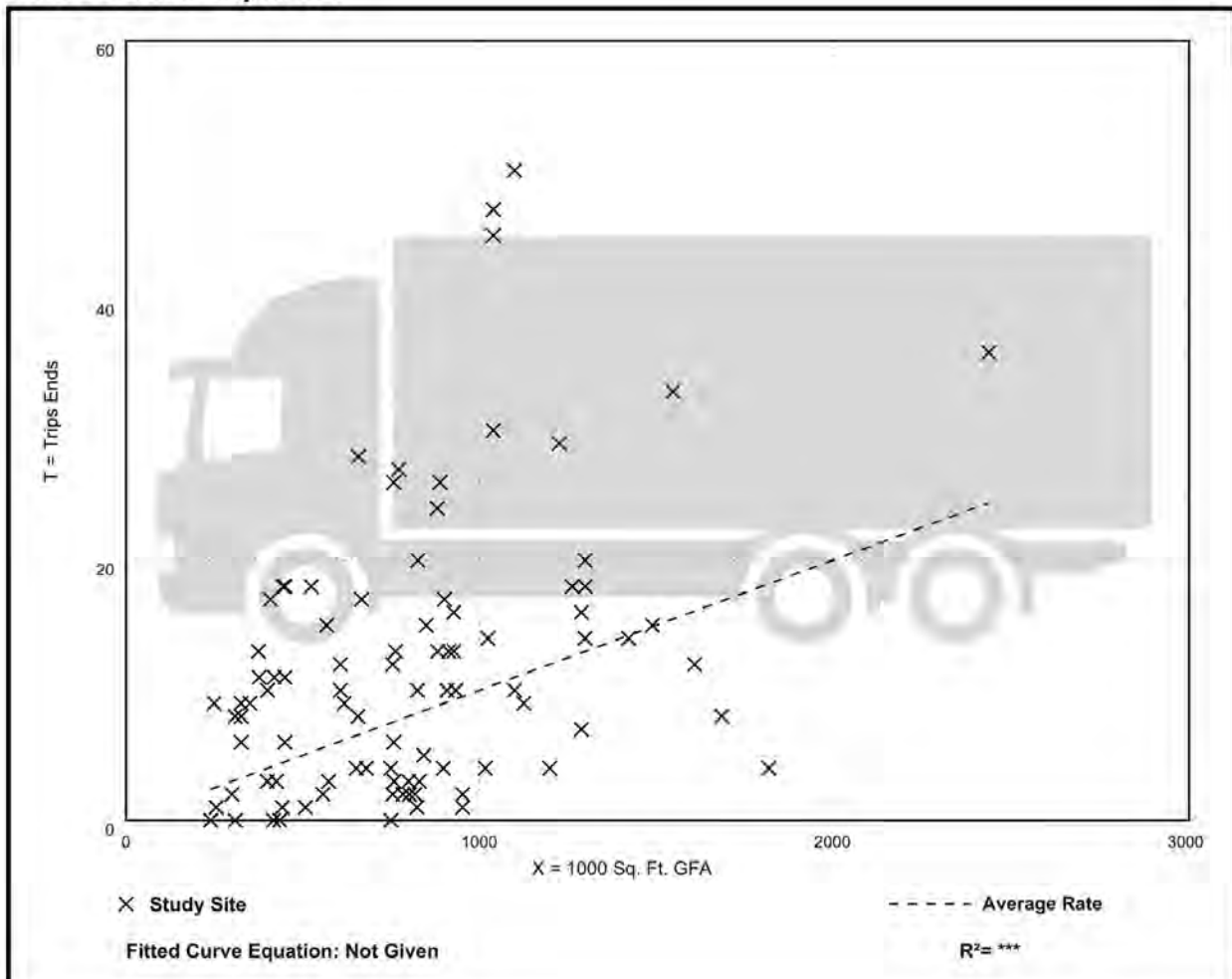
Avg. 1000 Sq. Ft. GFA: 807

Directional Distribution: 47% entering, 53% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.01 | 0.00 - 0.05 | 0.01 |

Data Plot and Equation



Land Use Code 155 - Non-Sort
Table
Cajon Creek Trip Generation Summary

| Land Use | Land Use as listed in ITE | ITE Land Use Code | Units ¹ | Trip Rate ² | Daily Trips | AM Peak-Hour | | | | | PM Peak-Hour | | | | |
|--|--|-------------------|--------------------|------------------------|-------------|-----------------------|---------------------------|----|-----------|-----------|-----------------------|---------------------------|----|-----------|-----------|
| | | | | | | % of ADT ² | In:Out Ratio ² | In | Out | Total | % of ADT ² | In:Out Ratio ² | In | Out | Total |
| Driveway Trips³ | | | | | | | | | | | | | | | |
| Proposed Vehicles | | | | | | | | | | | | | | | |
| High-Cube Fulfillment Center Warehouse | High-Cube Fulfillment Center Warehouse | 155 | 398 ksf | 1.81 / ksf | 720 | 8% | 0.81 : 0.19 | 48 | 12 | 60 | 9% | 0.39 : 0.61 | 25 | 39 | 64 |
| Subtotal | | | | | 720 | 48 | | | 12 | 60 | 25 | | | 39 | 64 |
| Proposed Passenger Vehicles | | | | | | | | | | | | | | | |
| High-Cube Fulfillment Center Warehouse | High-Cube Fulfillment Center Warehouse | 155 | 398 ksf | 1.58 / ksf | 629 | 8% | 0.85 : 0.15 | 44 | 8 | 52 | 10% | 0.38 : 0.62 | 23 | 37 | 60 |
| Proposed Trucks | | | | | | | | | | | | | | | |
| High-Cube Fulfillment Center Warehouse | High-Cube Fulfillment Center Warehouse | 155 | 398 ksf | 0.23 / ksf | 92 | 9% | 0.50 : 0.50 | 4 | 4 | 8 | 4% | 0.46 : 0.54 | 2 | 2 | 4 |
| Truck Breakdown | | | | | | | | | | | | | | | |
| Truck Type | Truck Mix ⁴ | | | | | | | | | | | | | | |
| 2 Axle | 33% | | | | 30 | 4% | 0.60 : 0.40 | 1 | 0 | 1 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 3 Axle | 18% | | | | 16 | 4% | 0.60 : 0.40 | 0 | 0 | 1 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 4 Axle | 49% | | | | 45 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| Truck Subtotal | | | | | 91 | 2 | | | 1 | 4 | 3 | | | 3 | 6 |
| PCE Breakdown | | | | | | | | | | | | | | | |
| Truck Type | Passenger Car Equivalent Rate | | | | | | | | | | | | | | |
| 2 Axle | 2 | | | | 60 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 3 Axle | 2.5 | | | | 40 | 4% | 0.60 : 0.40 | 1 | 1 | 2 | 4% | 0.50 : 0.50 | 1 | 1 | 2 |
| 4 Axle | 3 | | | | 135 | 4% | 0.60 : 0.40 | 3 | 2 | 5 | 4% | 0.50 : 0.50 | 3 | 3 | 6 |
| Truck Subtotal (PCE) | | | | | 235 | 6 | | | 4 | 9 | 5 | | | 5 | 10 |
| NET TRIP GENERATION = | | | | | 864 | 50 | | | 12 | 61 | 28 | | | 42 | 70 |

Note:

1. ksf = Thousand Square Feet
2. Trip rates references from ITE Trip Generation, 11th Edition.
3. Driveway trips are the total number of trips generated by a site.
4. Per San Bernardino Traffic Study Guidelines, Truck Mixes based on Fontana Study (Light Industrial land use), and PCES from San Bernardino City Traffic Study Guidelines

Land Use: 155

High-Cube Fulfillment Center Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. A high-cube warehouse can be free-standing or located in an industrial park.

Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

Land Use Subcategory

Each fulfillment center in the ITE database has been categorized as either a sort or non-sort facility. A sort facility is a fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means. A non-sort facility is a fulfillment center that ships large box items that are processed primarily with automation rather than through manual means. Separate sets of data plots are presented for the sort and non-sort fulfillment centers. Some limited assembly and repackaging may occur within the facility.

Additional Data

A high-cube warehouse may contain a mezzanine. In a HCW setting, a mezzanine is a free-standing, semi-permanent structure that is commonly supported by structural steel columns and that is lined with racks or shelves. The gross floor area (GFA) values for the study sites in the database for this land use do NOT include the floor area of the mezzanine. The GFA values represent only the permanent ground-floor square footage.

The amount of office/employee welfare space that is provided within a HCW can be highly variable but is typically an insignificant portion of the overall building square footage. Within the trip generation database, common values are between 3,000 and 5,000 square feet for a Cold Storage HCW and between 5,000 and 10,000 square feet for Transload, Fulfillment Center, and Parcel Hub HCW (all of which are less than one percent of total GFA for a site). Therefore, for the trip generation data plots, any office space that is part of the normal operation of the warehouse is included in the total GFA.

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled "High-Cube Warehouse Vehicle Trip Generation Analysis," published in October 2016. The results of this study are posted on the ITE website at <http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498>.

The sites were surveyed in the 2000s and the 2010s in California, New Jersey, and Texas.

Source Numbers

752, 941, 1001, 1002, 1011

High-Cube Fulfillment Center Warehouse - Non-Sort (155)

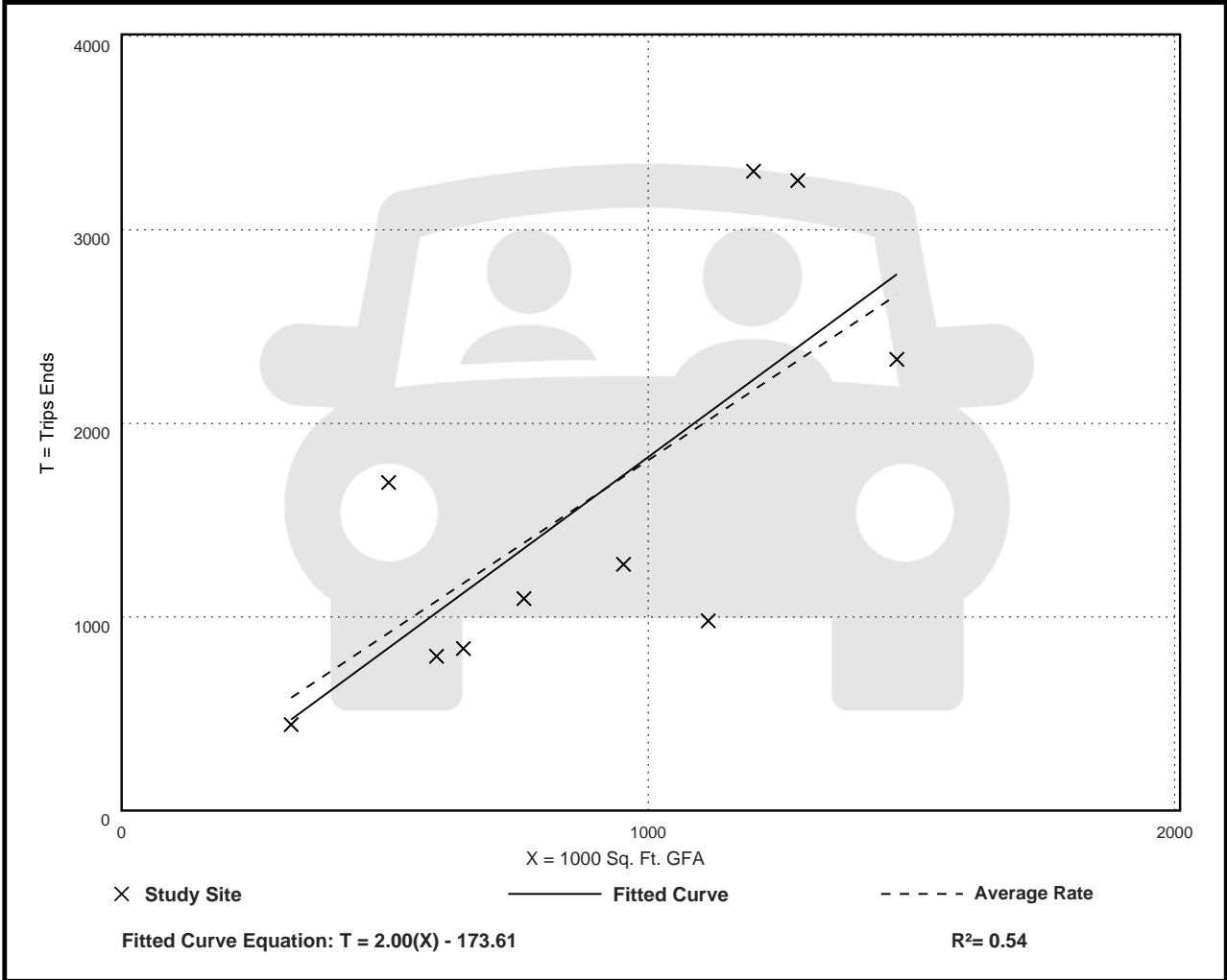
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday

Setting/Location: General Urban/Suburban
 Number of Studies: 10
 Avg. 1000 Sq. Ft. GFA: 886
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 1.81 | 0.88 - 3.34 | 0.76 |

Data Plot and Equation



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

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.

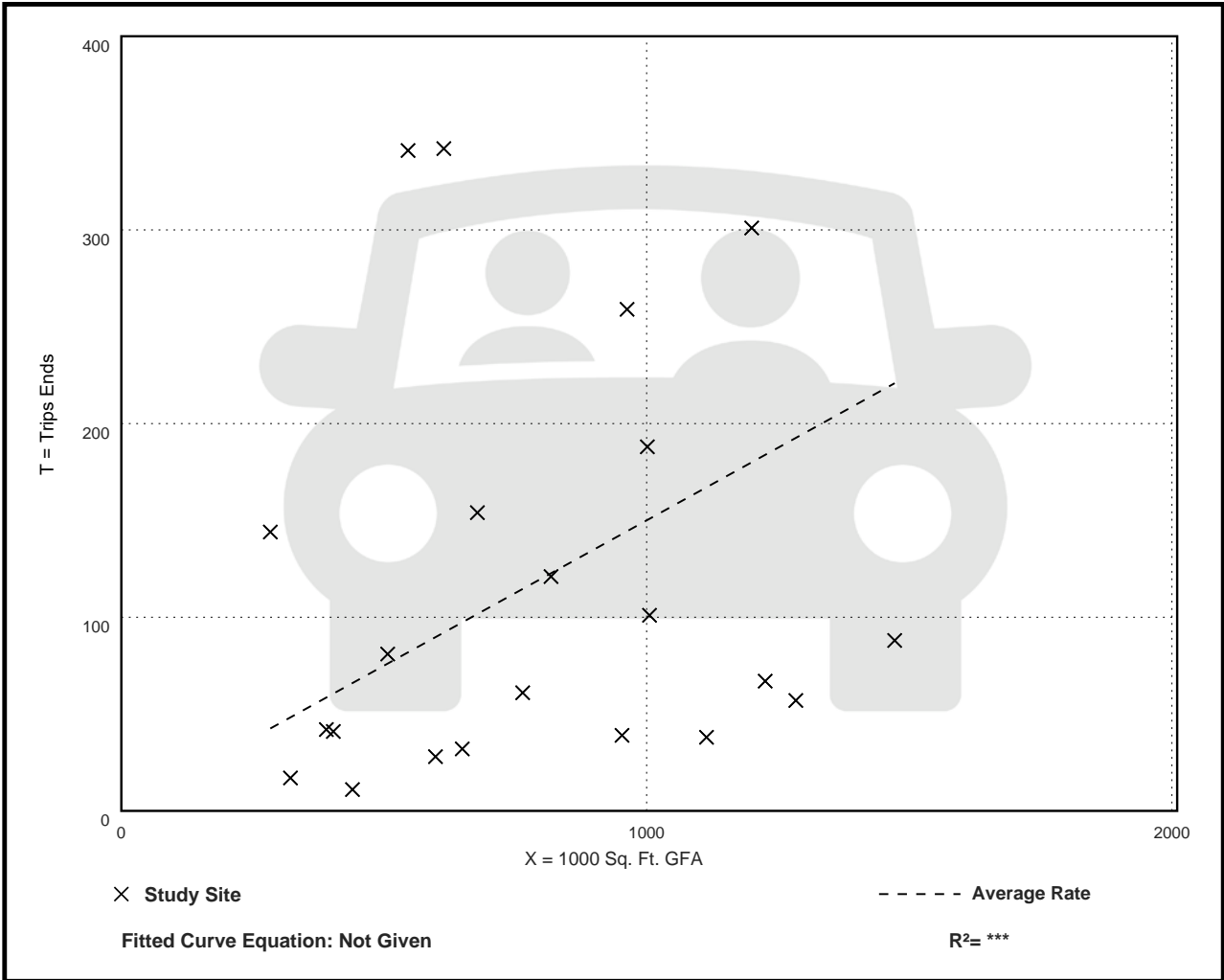
Setting/Location: General Urban/Suburban

Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 783
Directional Distribution: 81% entering, 19% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.15 | 0.03 - 0.62 | 0.15 |

Data Plot and Equation



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

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.

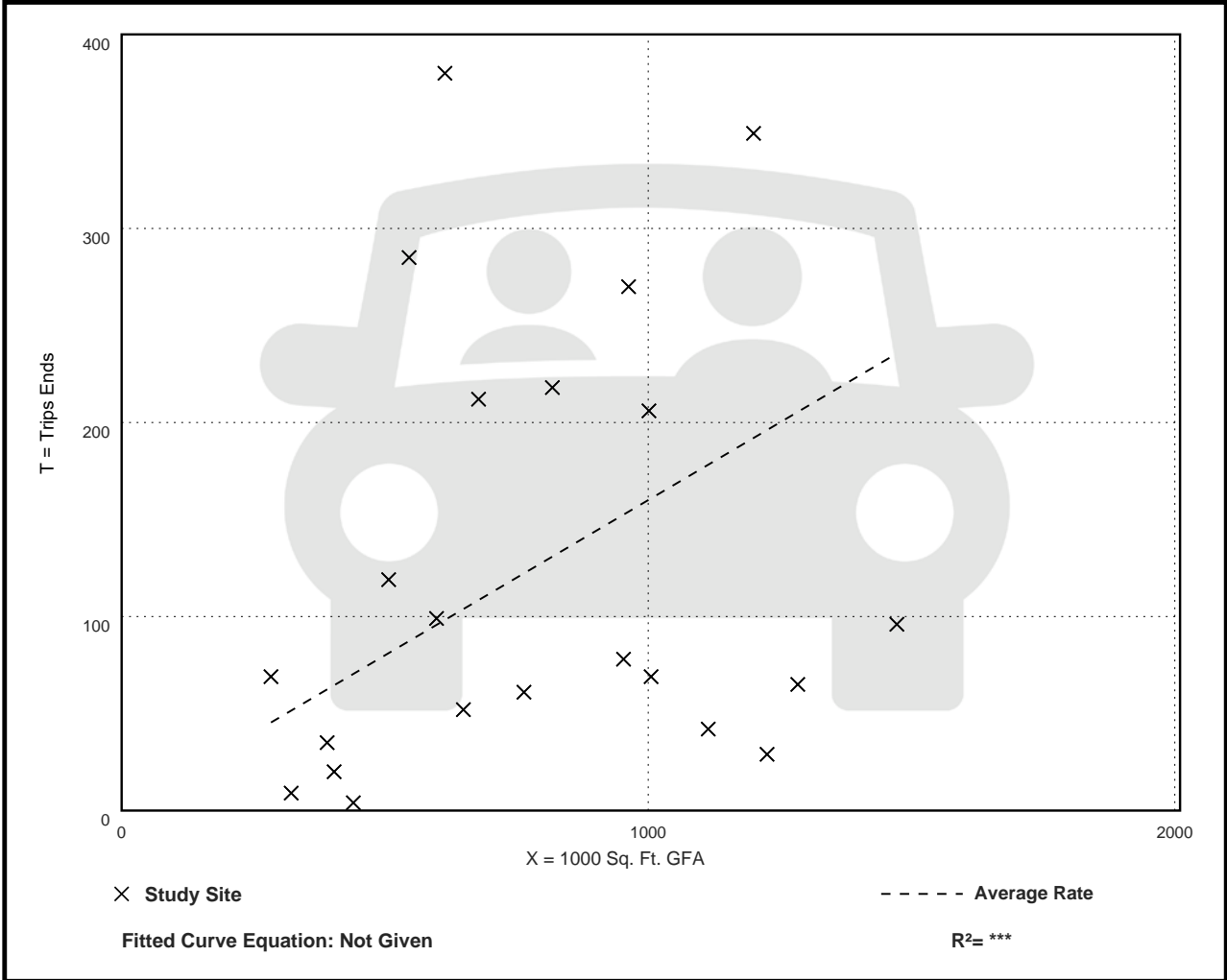
Setting/Location: General Urban/Suburban

Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 783
Directional Distribution: 39% entering, 61% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.16 | 0.01 - 0.62 | 0.15 |

Data Plot and Equation



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

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

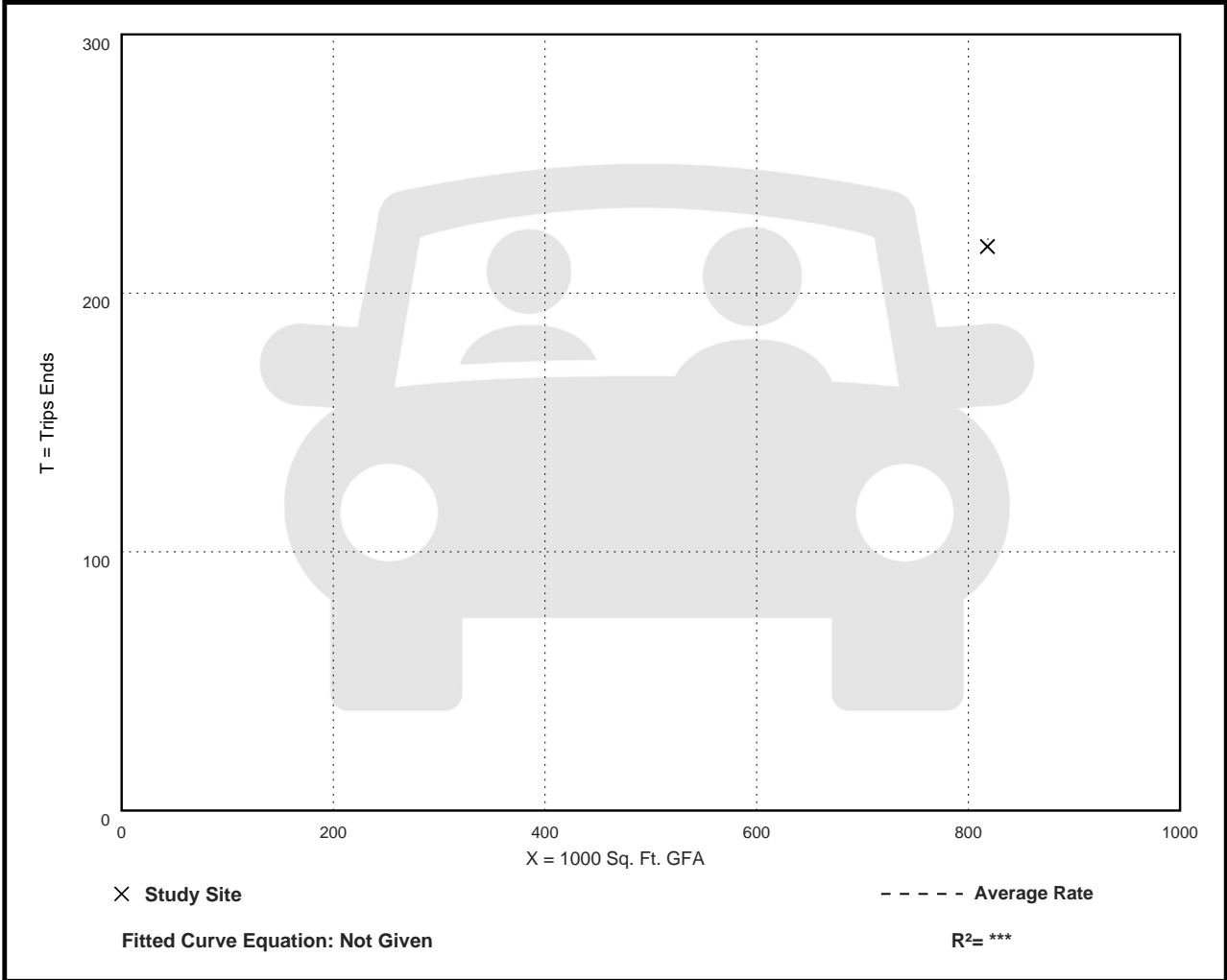
Setting/Location: General Urban/Suburban
 Number of Studies: 1
 Avg. 1000 Sq. Ft. GFA: 818
 Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.27 | 0.27 - 0.27 | *** |

Data Plot and Equation

Caution – Small Sample Size



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

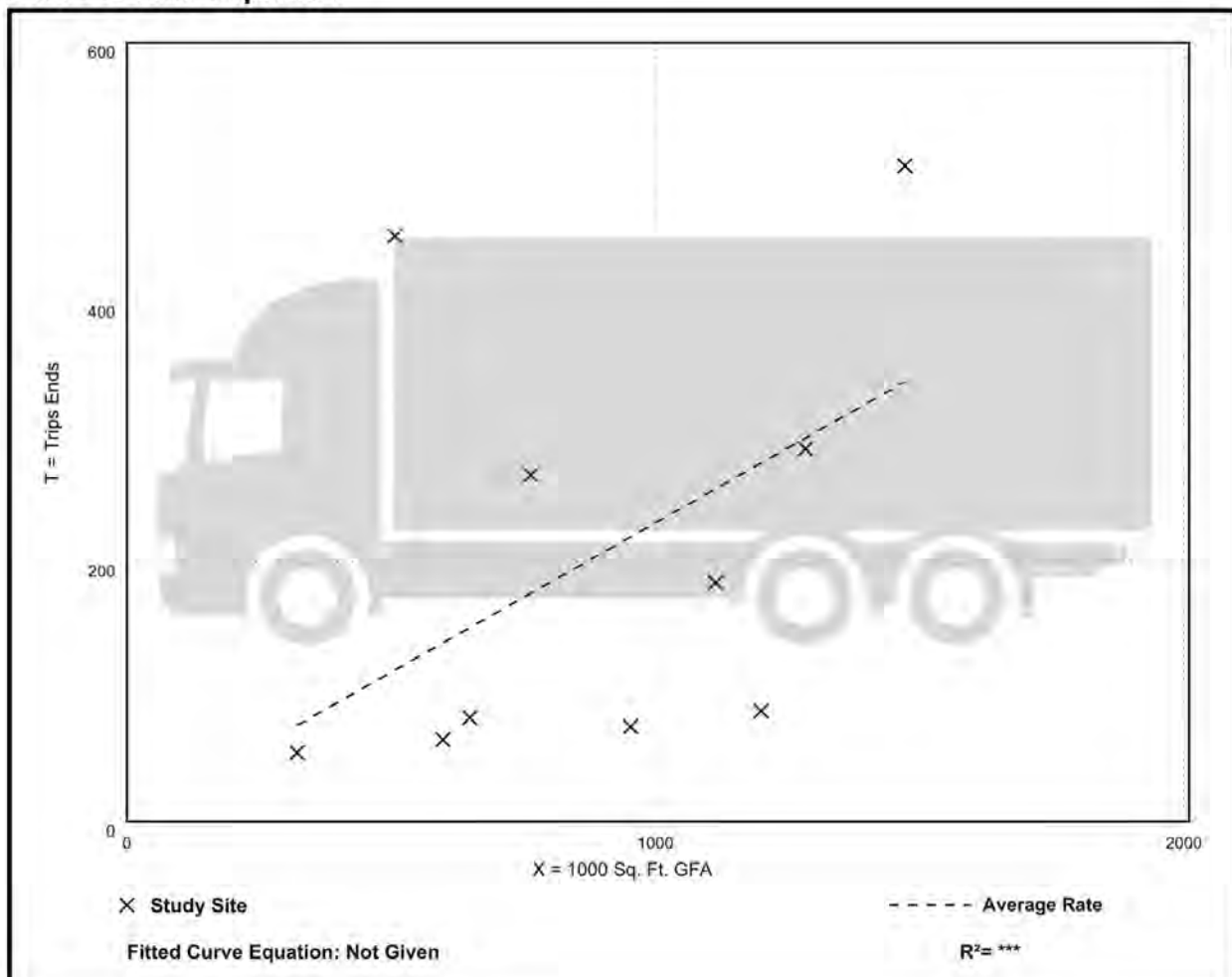
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. 1000 Sq. Ft. GFA: 886
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.23 | 0.07 - 0.89 | 0.20 |

Data Plot and Equation



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

Truck 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: 21

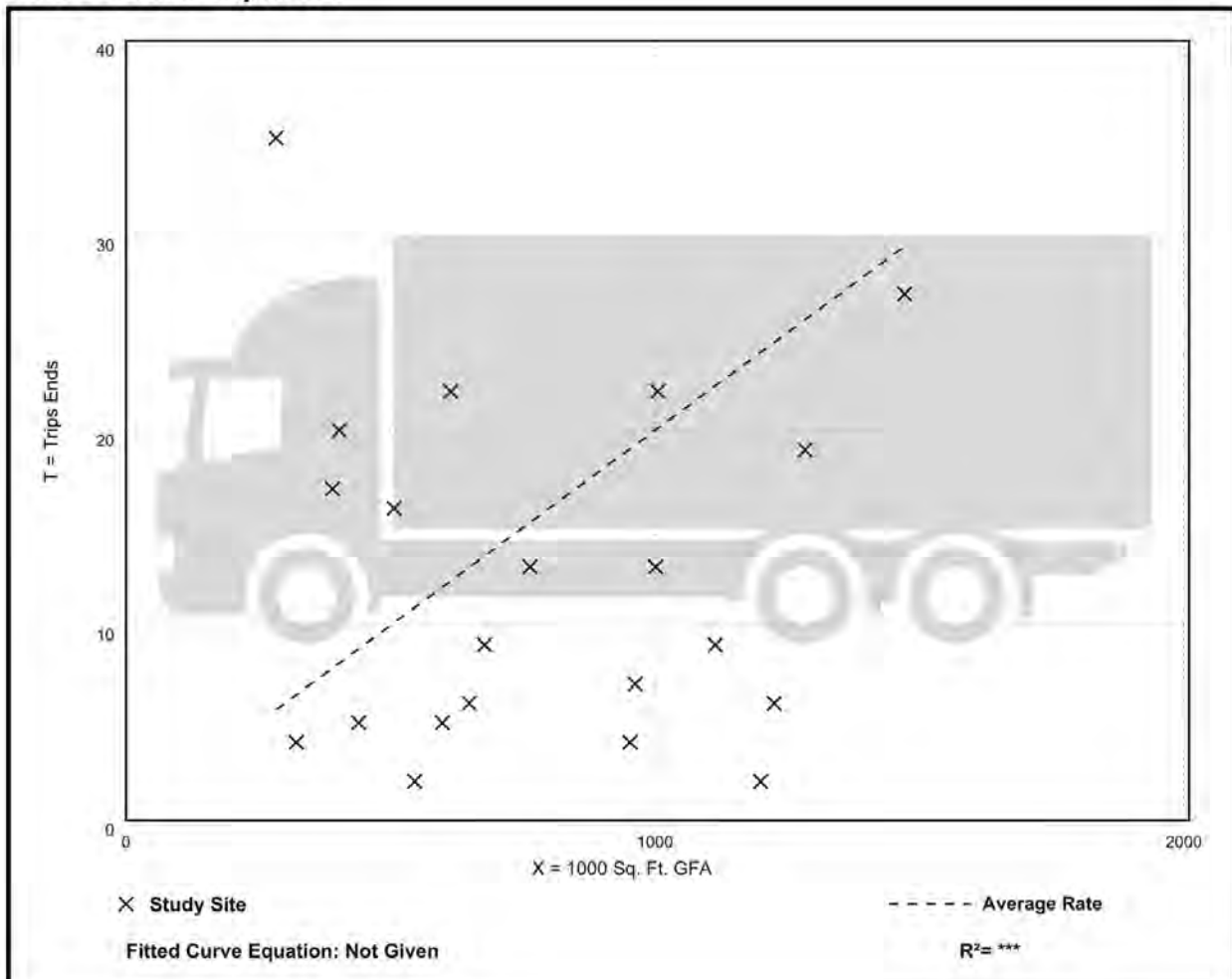
Avg. 1000 Sq. Ft. GFA: 782

Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.02 | 0.00 - 0.12 | 0.02 |

Data Plot and Equation



High-Cube Fulfillment Center Warehouse - Non-Sort (155)

Truck 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: 21

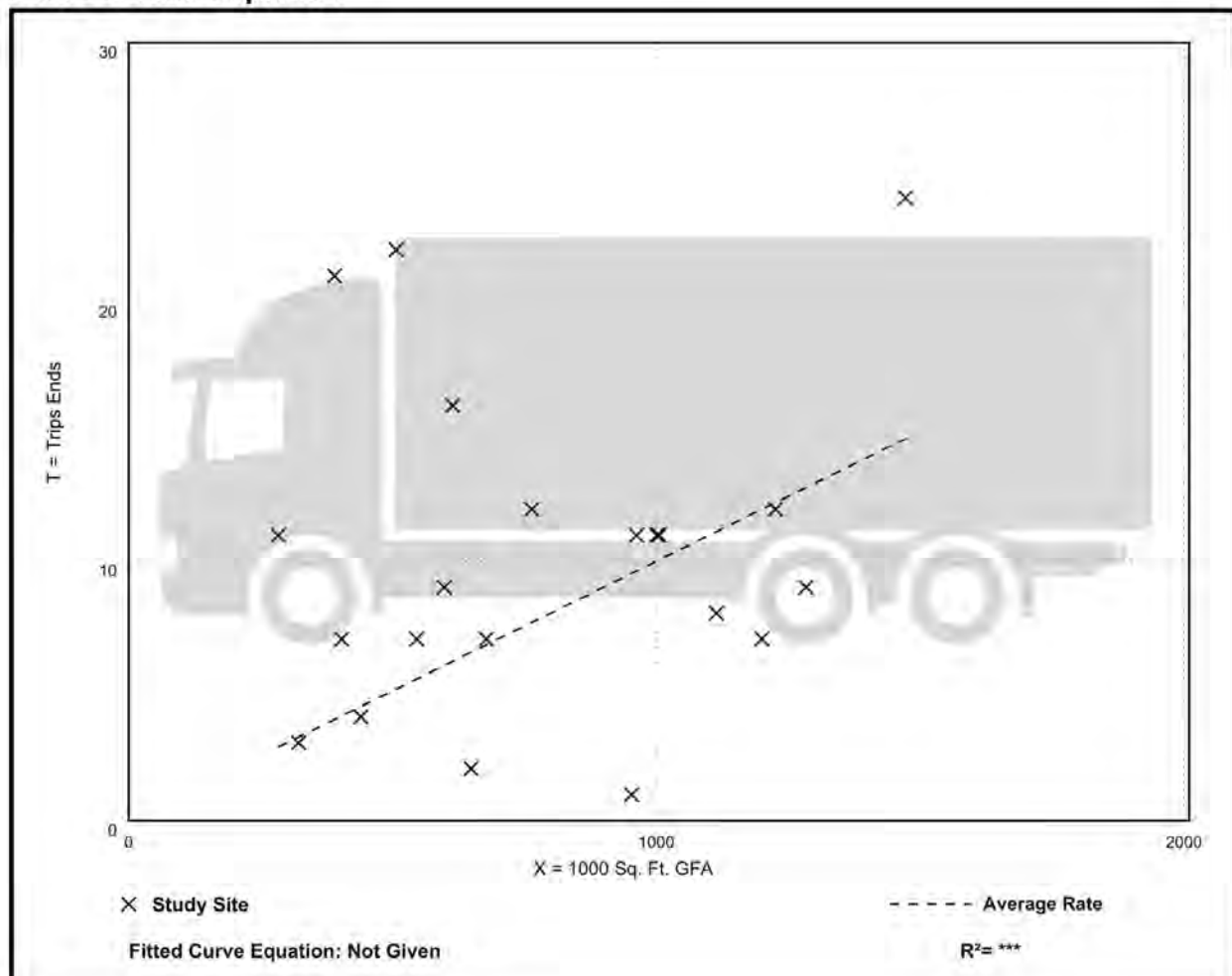
Avg. 1000 Sq. Ft. GFA: 782

Directional Distribution: 46% entering, 54% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.01 | 0.00 - 0.05 | 0.01 |

Data Plot and Equation



ATTACHMENT D

Exhibit A

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the City of Fontana Engineering Department requirements for traffic impact analysis of the following project. The analysis must follow the SBCTA Congestion Management Plan (CMP) Guidelines Updated 2016.

Case No. _____
Related Cases - _____
SP No. _____
EIR No. _____
GPA No. _____
CZ No. _____
Project Name: Sierra Distribution Center
Project Address: Sierra Avenue, Fontana, CA
Project Description: Redevelopment of existing site with ongoing operations and development of an approximately 387 KSF warehouse building.

| | <u>Consultant</u> | <u>Developer</u> |
|------------|---|---|
| Name: | <u>Kimley-Horn and Associates</u> | <u>Seefried Industrial Properties</u> |
| Address: | <u>3880 Lemon Street, Suite 420</u> <u>Riverside, CA 92501</u> | <u>2321 Rosecrans Avenue, Suite 2220</u> <u>El Segundo, CA 90245</u> |
| Telephone: | <u>(951) 543-9868</u> | <u>(310) 536-7900</u> |
| Fax: | _____ | _____ |

A. Trip Generation Source: _____

| Current GP Land Use | Proposed Land Use |
|---|-------------------------------|
| Current Zoning <u>Light Industrial (M-1)</u> | <u>Light Industrial (I-L)</u> |
| Proposed Zoning <u>Light Industrial (M-1)</u> | |

| Current Trip Generation | Proposed Trip Generation | | | | |
|-------------------------|--------------------------|-----------|-----------|-----------|-----------|
| In | Out | Total | In | Out | Total |
| AM Trips <u>36</u> | <u>40</u> | <u>76</u> | <u>61</u> | <u>21</u> | <u>82</u> |
| PM Trips <u>24</u> | <u>13</u> | <u>37</u> | <u>26</u> | <u>56</u> | <u>82</u> |

| | | | |
|-------------------------|------------------------------|--|--------------------------|
| Internal Trip Allowance | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | (_____ % Trip Discount) |
| Pass-By Trip Allowance | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | (_____ % Trip Discount) |

A pass-by trip discount is allowed for appropriate land uses per ITE trip generation handbook 3rd edition. The pass-by trips at adjacent study area intersections and project driveways shall be indicated on a report figure. (Attach table for detailed trip generation)

B. Trip Geographic Distribution: N 20 % S 60 % E 10 % W 10 %
(attach exhibit for detailed assignment)

C. Background Traffic

Project Opening & Future Build-Out Year: 2025 Annual Ambient Growth Rate: 2 %
2025
Phase Year(s) N/A
Other area projects to be analyzed: N/A
Model/Forecast methodology N/A

Exhibit B – Scoping Agreement – Page 2

D. Study intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- | | |
|---------------|-----------|
| 1. <u>N/A</u> | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

E. Study Roadway Segments: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- | | |
|---------------|-----------|
| 1. <u>N/A</u> | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

E. Other Jurisdictional Impacts

Is this project within a City’s Sphere of Influence or one-mile radius of City boundaries? Yes No

If so, name of City Jurisdiction: Rialto

F. Site Plan (please attach reduced copy)

G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Engineering Department)

(NOTE: If the traffic study states that “a traffic signal appears to be warranted,” or “a traffic signal appears to be warranted,” or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

H. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts N/A

Recommended by:

Joe Shultz, P.E. 8/15/2022
Consultant’s Representative Date

Approved Scoping Agreement:

City of Fontana Traffic Engineer Date

Scoping Agreement Submitted on 8/15/2022

Revised on _____

ATTACHMENT E

Shultz, Joe

From: Karadimos, Meghan
Sent: Monday, December 19, 2022 9:56 AM
To: Shultz, Joe
Cc: Burnett, Candyce
Subject: FW: (MCN22-104) FW: Trip Generation Assessment and Traffic Scoping for the Proposed Sierra Distribution Facility
Attachments: Sierra Distribution Center_Trip Generation Assessment_2022.08.16.pdf

FYI, see below.

Meghan D. Karadimos
Kimley-Horn
Direct: 951 335 8283

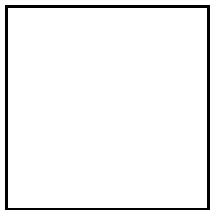
From: Irene Romero <iromero@fontana.org>
Sent: Monday, December 19, 2022 7:44 AM
To: Karadimos, Meghan <Meghan.Karadimos@kimley-horn.com>
Cc: Burnett, Candyce <Candyce.Burnett@kimley-horn.com>; Irene Romero <iromero@fontana.org>; Delia Votsch <dvotsch@fontana.org>
Subject: (MCN22-104) FW: Trip Generation Assessment and Traffic Scoping for the Proposed Sierra Distribution Facility

You don't often get email from iromero@fontana.org. [Learn why this is important](#)

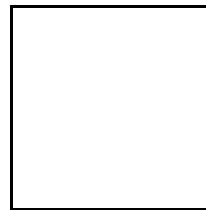
Hello Meghan,

The Trip Generation memo was reviewed by Engineering and concluded no further LOS or VMT analysis is required.

Thank you,



Irene Romero
Associate Planner • Planning
City of Fontana • 8353 Sierra Ave • Fontana, CA 92335
iromero@fontana.org • Office: (909) 350-6658



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This email has been scanned for viruses and malware, and may have been automatically archived.

From: Karadimos, Meghan <Meghan.Karadimos@kimley-horn.com>
Sent: Wednesday, December 14, 2022 3:01 PM
To: Delia Votsch <dvotsch@fontana.org>