



December 7, 2020

Mr. David Aden
Town of Parker Traffic Engineer
Department of Engineering/Public Works
20120 E Mainstreet
Parker, CO 80138-7734

Re: Parker and Pine Lot 6 – Everbrook Academy
Traffic Compliance Letter
Parker, Colorado

Dear Mr. Aden:

This traffic study letter has been prepared to provide a trip generation comparison to identify compliance with the original traffic impact study for Everbrook Academy, a new school daycare to be developed as part of the Parker and Pine project in Parker, Colorado. Everbrook Academy is proposed to include an approximate 12,870 square foot school/daycare within a portion of the Parker and Pine development site. The proposed Everbrook Academy is to be located in the northwest portion of the overall development area on Lot 6, directly on the southeast corner of the Pine Lane and Twenty Mile Road intersection (site plan attached). The site is currently undeveloped land. Kimley-Horn completed the "Parker and Pine Traffic Impact Study" in April 2020 which included this development area. The trip generation of this proposed Everbrook Academy school/daycare is compared with the trip generation for the applicable use evaluated as part of the original traffic study within the same development area. Applicable documents from the original traffic study are attached for reference.

Site Information and Trip Generation Comparison

Everbrook Academy is proposed to include a school daycare with a building of approximately 12,870 square feet. The original Parker and Pine traffic study identified development of 13,000 square feet of daycare use in the same development area. Therefore, the purpose of this letter is to summarize a comparison of the trip generation from the proposed Everbrook Academy to the originally studied daycare use in the original traffic study.

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

Trip generation calculations from the original traffic study and the currently proposed project is based on the ITE Trip Generation, 10th Edition (most current edition) average rate equations for Day Care Center (ITE Land Use Code 565). The following table compares the trip generation from the original study compared to the expected trip generation for the proposed day care area of the site. The trip generation calculation sheets from the original traffic study, as well as from the current proposal are attached for reference.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Tenth Edition, Washington DC, 2017.

Trip Generation Comparison: Original Study vs. Everbrook Academy

Use and Size	Daily Vehicle Trips	Weekday Vehicle Trips					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Original Traffic Study							
Day Care (ITE 565) – 13,000 SF	620	76	67	143	68	77	145
Current Proposal – Everbrook Academy							
Day Care (ITE 565) – 12,870 SF	614	75	67	142	67	76	143
Net Difference in Trips	-6	-1	0	-1	-1	-1	-2

As summarized in the table, the daycare use area originally studied was anticipated to generate approximately 620 weekday daily trips, with 143 of these trips occurring during the morning peak hour, and 145 trips occurring during the afternoon peak hour. The currently proposed Everbrook Academy school/daycare use within Parker and Pine development area is expected to generate 614 weekday daily trips, with 142 trips occurring during the morning peak hour, and 143 trips occurring during the afternoon peak hour according to the ITE trip equations based on the square footage. Based on this, the currently proposed daycare area is anticipated to generate six (6) fewer daily trips, with one (1) fewer trip occurring during the morning peak hour and two (2) fewer trips occurring during the afternoon peak hour than previously studied. Therefore, the current Everbrook Academy proposed day care is within the volume limits of the previous analysis and is in traffic compliance of the original traffic study.

Conclusions

Based on these results, development of Everbrook Academy with a 12,870 square foot building within the Parker and Pine development generates less traffic than previously studied. Therefore, the proposed project is believed to be in traffic compliance with the original “Parker and Pine Traffic Impact Study” dated April 2020. It is believed that the original traffic study conclusions and recommendations remain valid and any potential traffic impacts with the proposed project have been previously addressed. We feel no further traffic analysis is needed due to this proposal, but if you have any questions or require anything further, please let me know.

Sincerely,

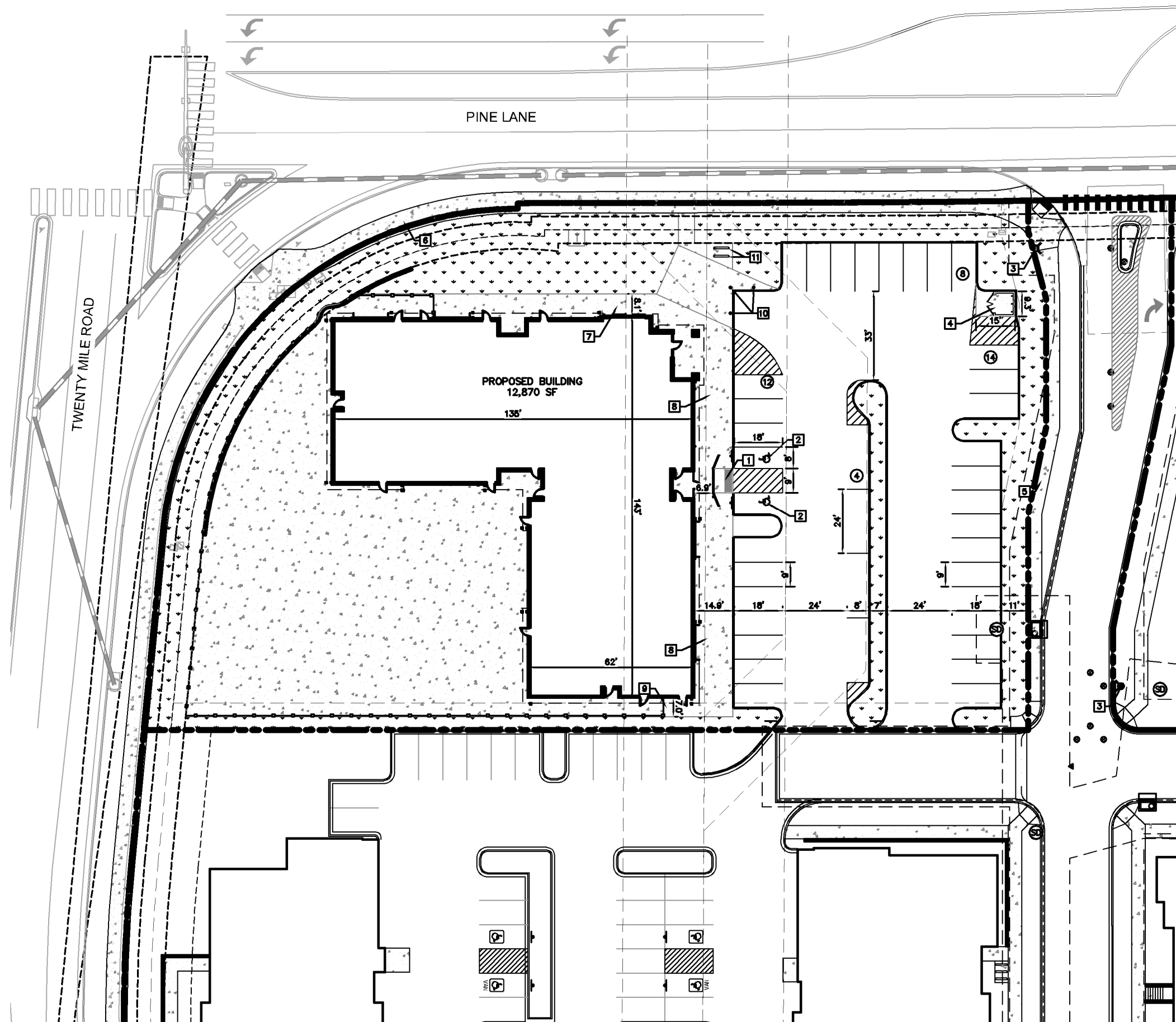
KIMLEY-HORN AND ASSOCIATES, INC.



Curtis D. Rowe, P.E., PTOE
Vice President



Conceptual Site Plan



LEGEND

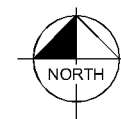
- | | |
|---|--|
|  | PROPERTY LINE |
|  | NUMBER OF PARKING SPACES |
|  | ACCESSIBLE PARKING SPACES |
|  | PROPOSED ELECTRICAL TRANSFORMER |
|  | LANDSCAPED AREA |
|  | STANDARD DUTY ASPHALT PAVING |
|  | HEAVY DUTY CONCRETE |
|  | PROPOSED EASEMENT |
|  | EXISTING EASEMENT |
|  | PROPOSED CURB AND GUTTER |

KEY NOTES

- 1 PROPOSED ADA ACCESSIBLE SIDEWALK RAMP**
- 2 PROPOSED ADA PARKING STALLS**
- 3 EXISTING FIRE HYDRANT**
- 4 PROPOSED TRASH ENCLOSURE**
- 5 EXISTING 5' CONCRETE SIDEWALK**
- 6 EXISTING 8' CONCRETE SIDEWALK**
- 7 PROPOSED 8' CONCRETE SIDEWALK**
- 8 PROPOSED 15' CONCRETE SIDEWALK**
- 9 PROPOSED 7' CONCRETE SIDEWALK**
- 10 PROPOSED REMOVABLE BOLLARDS**
- 11 PROPOSED BIKE RACK**

NOTES:

- NOTES:
1. ALL LIGHTING ON-SITE, EXTERIOR, UNROOFED LIGHTING SHALL CONFORM TO THE TOWN'S LIGHTING STANDARDS.
 2. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW FROM A PUBLIC RIGHT OF WAY.
 3. LOCATION OF TRASH RECEPTACLES SHALL BE SCREENED BY A SOLID SCREEN FENCE SURROUNDING AT LEAST 3 SIDES OF THE CONTAINER.



GRAPHIC SCALE IN FEET



A horizontal scale bar with four segments. The first segment is labeled '0', the second '10', the third '20', and the fourth '40'. The segments are alternating white and black.



Know what's **below**.
Call before you dig.

Kimley»»Horn

2020 KIMLEY-HORN AND ASSOCIATES, INC.
4582 South Ulster Street, Suite 1500
Denver, Colorado 80237 (303) 228-2300

DESIGNED BY:DLS
DRAWN BY:NMH
CHECKED BY: DLS
DATE: 12/04/20

LOT 6 PARKER AND PINE FILING 1
PARKER, CO
CONSTRUCTION DOCUMENTS
OVERALL SITE PLAN

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION
Kimley-Horn
Kimley-Horn and Associates, Inc.

PROJECT NO.
096895001

DRAWING NAME
086555001SP_SP

C4.0

Trip Generation Calculations

Project Parker and Pine Lot 6 - Everbrook Academy
 Subject Trip Generation for Day Care Center
 Designed by MAG Date December 07, 2020 Job No. 096895001
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Day Care Center (565)

Independant Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = 12,870 Square Feet

X = 12.870

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (500 Series page 226)

Average Weekday	Directional Distribution:	53% ent.	47% exit.
T = 11.00 (X)	T = 142	Average Vehicle Trip Ends	
T = 11.00 * 12.870	75 entering	67 exiting	
	75 + 67 =	142	

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (500 Series page 227)

Average Weekday	Directional Distribution:	47% ent.	53% exit.
T = 11.12 (X)	T = 143	Average Vehicle Trip Ends	
T = 11.12 * 12.870	67 entering	76 exiting	
	67 + 76 =	143	

Weekday (500 Series page 225)

Average Weekday	Directional Distribution:	50% entering, 50% exiting
T = 47.62 (X)	T = 614	Average Vehicle Trip Ends
T = 47.62 * 12.870	307 entering	307 exiting
	307 + 307 =	614

Original Traffic Study Documents

T R A F F I C I M P A C T S T U D Y

Parker and Pine

Parker, Colorado

Prepared for
Eisenberg Company
2710 E Camelback Rd #210
Phoenix, AZ 85016

Prepared by
Kimley-Horn and Associates, Inc.
4582 South Ulster Street
Suite 1500
Denver, Colorado 80237
(303) 228-2300



April 2020

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Parker and Pine Trip Generation Summary - 2019 Study

Land Use	Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Total Trips								
Mid-Rise Multifamily Residential (ITE 221)	175 Units	952	15	44	59	46	30	76
Day Care Center (ITE 565)	13,000 SF	620	74	69	143	68	77	145
Shopping Center (ITE 820)	17,000 SF	642	10	6	16	31	34	65
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,414	62	59	121	51	47	98
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,414	62	59	121	51	47	98
Gas Station w/ Convenience (ITE 945)	16 Positions	3,286	102	98	200	114	110	224
Automated Car Wash (ITE 948)	5,400 SF	760	38	38	76	38	38	76
Total	-	9,088	363	373	736	399	383	782
Total Trips After Internal Capture (ITE Methodology)								
Mid-Rise Multifamily Residential (ITE 221)	175 Units	857	14	40	53	41	27	68
Day Care Center (ITE 565)	13,000 SF	558	67	62	129	61	69	131
Shopping Center (ITE 820)	17,000 SF	642	10	6	16	31	34	65
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,273	56	53	109	46	42	88
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,273	56	53	109	46	42	88
Gas Station w/ Convenience (ITE 945)	16 Positions	2,957	92	88	180	103	99	202
Automated Car Wash (ITE 948)	5,400 SF	684	34	34	68	34	34	68
Total	-	8,244	329	336	664	362	347	710
Non Pass-By Trips								
Mid-Rise Multifamily Residential (ITE 221)	175 Units	857	14	40	53	41	27	68
Day Care Center (ITE 565)	13,000 SF	558	67	62	129	61	69	131
Shopping Center (ITE 820)	17,000 SF	546	9	5	14	26	29	55
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,082	48	45	93	39	36	75
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	1,082	48	45	93	39	36	75
Gas Station w/ Convenience (ITE 945)	16 Positions	2,513	78	75	153	88	84	172
Automated Car Wash (ITE 948)	5,400 SF	684	34	34	68	34	34	68
Total	-	7,322	298	306	603	328	315	644
Pass-By Trips								
Shopping Center (ITE 820)	17,000 SF	96	0	0	0	5	5	10
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	191	8	8	16	7	6	13
Fast Food Restaurant w/ D.T. (ITE 934)	3,000 SF	191	8	8	16	7	6	13
Gas Station w/ Convenience (ITE 945)	16 Positions	444	14	13	27	15	15	30
Total	-	922	30	29	59	34	32	66

Project Parker and Pine
 Subject Trip Generation for Day Care Center
 Designed by JRP Date October 07, 2019 Job No. 096502001
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Day Care Center (565)

Independant Variable - 1000 Square Feet Gross Floor Area (X)

Gross Floor Area = **13,000** Square Feet

X = 13.000

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (500 Series page 226)

Average Weekday

T = 11.00 (X)

T = 11.00 * 13.000

Directional Distribution: 53% ent. 47% exit.

T = 143 Average Vehicle Trip Ends

76 entering 67 exiting

76 + 67 = 143

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (500 Series page 227)

Average Weekday

T = 11.12 (X)

T = 11.12 * 13.000

Directional Distribution: 47% ent. 53% exit.

T = 145 Average Vehicle Trip Ends

68 entering 77 exiting

68 + 77 = 145

Weekday (500 Series page 225)

Average Weekday

T = 47.62 (X)

T = 47.62 * 13.000

Directional Distribution: 50% entering, 50% exiting

T = 620 Average Vehicle Trip Ends

310 entering 310 exiting

310 + 310 = 620