



Gulf Coast Consulting, Inc.

Land Development Consulting

Engineering • Planning • Transportation • Permitting

ICOT Center

13825 ICOT Boulevard, Suite 605

Clearwater, FL 33760

Phone: (727) 524-1818

Fax: (727) 524-6090

September 14, 2016

Mr. Housh Ghovae
Northside Engineering, Inc.
300 S. Belcher Road
Clearwater, FL 33765

Re: Conditional Use Application Precious Pets - 2845 Belcher Road
Traffic Assessment

Dear Mr. Ghovae:

I understand the applicant is seeking a Conditional Use approval for a "doggie daycare" for up to 100 dogs on the 1.3 acre property located at 2845 Belcher Road just north of SR 580. This segment of Belcher Road is a four-lane divided county arterial roadway. According to the Pinellas County 2015 Level of Service Report the adjacent segment of Belcher Road carries 21,375 vehicles per day AADT and is reported to operate at LOS B. Per the FDOT Generalized Capacity tables this roadway segment has a daily LOS D "capacity" of 35,820 vehicles per day, and a two-way peak hour capacity of 3,220 vehicles per hour.

ITE Trip Generation, 9th Edition does not include any data on "doggie daycare", however this facility would function very much like a child daycare center in which owners drop-off in the morning and pick up in the afternoon. Trip generation for the 100 dog facility was estimated using ITE Trip generation, 9th Edition Land Use Code 565 (Daycare Center) and we estimate this project would generate 438 daily trips, 80 AM peak hour trips, and 81 PM peak hour trips. The project traffic of this Conditional Use would represent 1.22% of the daily LOS D capacity of Belcher Road which is a minor impact. This would continue to result in LOS B operations with the Conditional Use project considered. By comparison, the compromise approach (limiting the site to 45 dogs) that is recommended by staff would result in 197 daily trips, 36 AM peak hour and 36 PM peak hour trips. Again, no change in LOS along Belcher Road would result.

In the future, if the Conditional Use is approved, a detailed analysis may be required for Site Access purposes.

Please contact me if you have any questions.

Sincerely,

Robert Pergolizzi, AICP/PTP
Principal

16-052

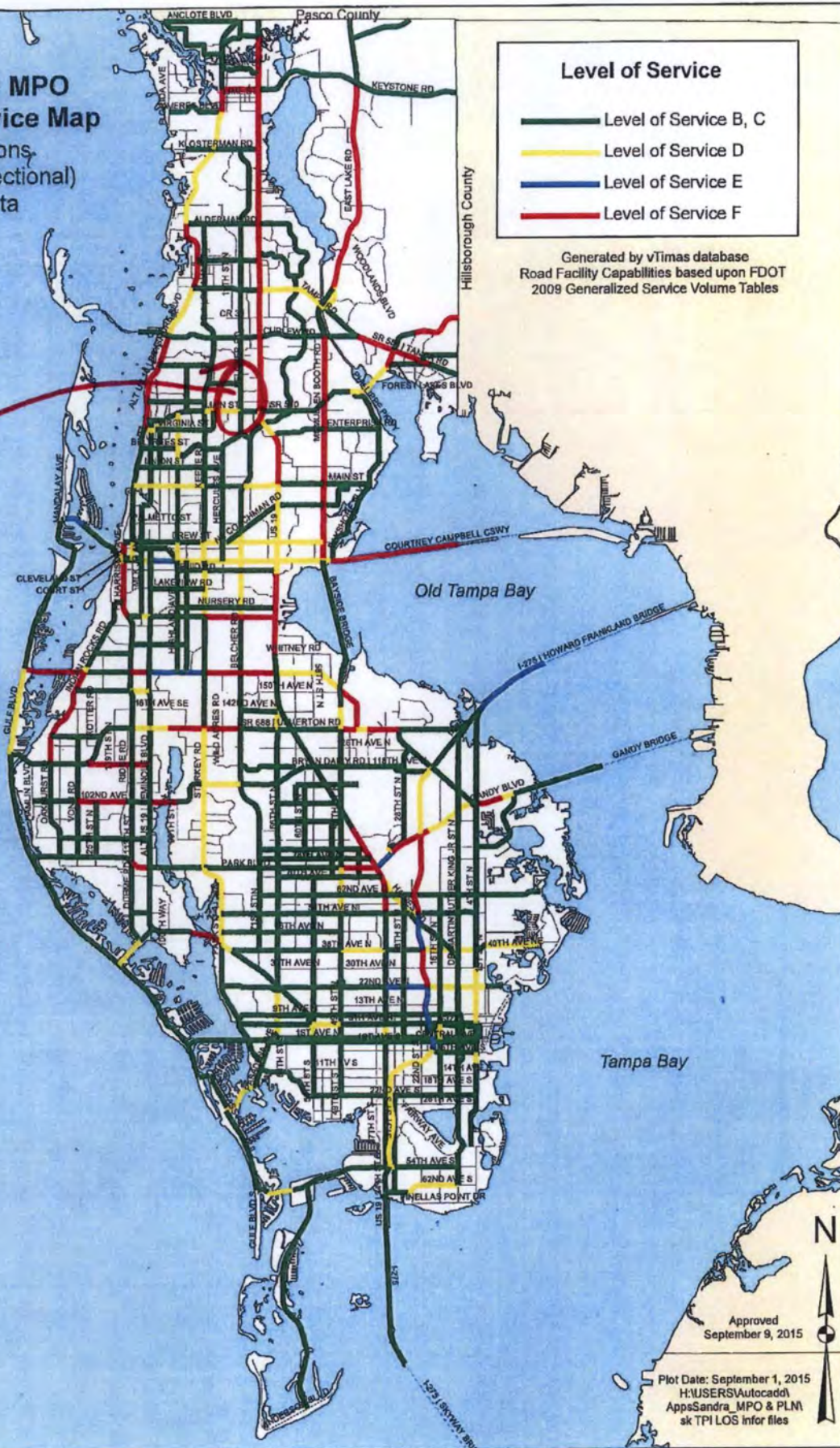
**Pinellas County MPO
2015 Level of Service Map**
Existing Conditions
(PM Peak Hour Directional)
2014 Base Data

Level of Service

- Level of Service B, C
- Level of Service D
- Level of Service E
- Level of Service F

Generated by vTImas database
Road Facility Capabilities based upon FDOT
2009 Generalized Service Volume Tables

SITE



Gulf of Mexico

Old Tampa Bay

Tampa Bay



Prepared by the Pinellas County MPO
310 Court St., Clearwater FL 33786
(727) 464-6649, or (727) 464-3653
www.pinellascounty.org/MPO

Approved
September 9, 2015

Plot Date: September 1, 2015
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Facility

Facility	Juris	Plan Area	Fac Type	Road Type	LOS Std	Length (mi)	Signals Per Mile	LOS Meth	AADT	Volume	Physical Capacity	V:Cap Ratio	Def Flag	Fac LOS
432 - ALT US 19 COURT ST: (CHESTNUT ST -to- FT HARRISON AVE)	SR	06	SA	4O	D	.476	4.20	T	14,500	1,378	4,536	.304	0	C
433 - ALT US 19 COURT ST: (CHESTNUT ST -to- MISSOURI AVE)	SR	06	SA	4D	D	.318	3.14	T	30,500	1,594	1,870	.852	0	D
434 - ALT US 19 EDGEWATER DR: (MYRTLE AVE -to- BROADWAY AVE)	SR	06	SA	2U	D	2.091	.96	T	14,893	778	880	.884	0	C
435 - ALT US 19 MISSOURI AVE: (COURT ST -to- BELLEAIR RD)	SR	06	SA	6D	D	1.512	2.65	T	27,667	1,446	2,830	.511	0	C
436 - ALT US 19 MISSOURI AVE: (BELLEAIR RD -to- E BAY DR)	SR	07	SA	6D	D	1.531	3.27	T	30,995	1,619	2,830	.572	0	C
437 - ALT US 19 MYRTLE AVE: (CHESTNUT ST -to- DREW ST)	SR	06	SA	4U	D	.500	6.00	T	16,100	841	1,577	.533	0	D
438 - ALT US 19 MYRTLE AVE: (DREW ST -to- FAIRMONT ST)	SR	06	SA	4U	D	.988	4.05	T	11,856	619	1,776	.349	0	C
439 - ALT US 19 MYRTLE AVE: (FAIRMONT ST -to- EDGEWATER DR)	SR	06	NA	2U	D	.091	.00	T	11,500	601	1,440	.417	0	C
440 - ALT US 19 PALM HARBOR BLVD: (TAMPA RD -to- ALDERMAN RD)	SR	03	SA	2D	D	1.916	.52	T	21,000	1,097	924	1.187	2	F
441 - ALT US 19 PALM HARBOR BLVD: (ALDERMAN RD -to- KLOSTERMAN RD)	SR	03	SA	2D	D	2.246	.45	T	16,800	878	924	.950	1	D
442 - ALT US 19 PINELLAS AVE: (KLOSTERMAN RD -to- MERES BLVD)	SR	01	SA	2U	D	1.056	.95	T	16,500	862	880	.980	1	D
443 - ALT US 19 PINELLAS AVE: (MERES BLVD -to- TARPON AVE)	SR	01	SA	2D	D	.595	5.04	T	16,500	862	830	1.039	2	F
444 - ALT US 19 PINELLAS AVE: (TARPON AVE -to- ANCLOTE BLVD)	SR	01	SA	2U	D	2.004	1.50	T	15,432	806	880	.916	1	C
445 - ALT US 19 SEMINOLE BLVD: (BAY PINES BLVD -to- PARK BLVD)	SR	09	SA	6D	D	1.529	2.62	T	35,500	1,855	2,830	.655	0	C
446 - ALT US 19 SEMINOLE BLVD: (PARK BLVD -to- 102ND AVE N)	SR	09	SA	6D	D	1.766	1.70	T	34,428	1,799	2,940	.612	0	B
447 - ALT US 19 SEMINOLE BLVD: (102ND AVE N -to- ULMERTON RD)	SR	09	SA	6D	D	2.026	2.47	T	33,770	1,764	2,830	.623	0	C
448 - ALT US 19 SEMINOLE BLVD: (ULMERTON RD -to- E BAY DR)	SR	07	SA	6D	D	1.521	1.31	T	33,000	1,724	2,940	.586	0	B
449 - ALT US 19 TYRONE BLVD: (5TH AVE N -to- 9TH AVE N)	SR	11	SA	4D	D	.252	3.97	T	19,300	1,008	1,870	.539	0	C
450 - ALT US 19 TYRONE BLVD: (9TH AVE N -to- 66TH ST N)	SR	11	SA	4D	D	1.188	1.68	T	30,640	1,601	1,960	.817	0	C
451 - ALT US 19 TYRONE BLVD: (66TH ST N -to- 38TH AVE N)	SR	11	SA	4D	D	1.651	1.21	T	33,000	1,724	1,960	.880	0	C
452 - ALT US 19 TYRONE BLVD: (38TH AVE N -to- PARK ST)	SR	11	SA	6D	D	.299	3.34	T	41,000	2,142	2,830	.757	0	D
453 - ANCLOTE BLVD: (ANCLOTE RD -to- ALT US 19)	CR	01	SMC	2U	D	2.063	.48	T	8,016	419	572	.733	0	C
454 - ANCLOTE RD: (ALT US 19 -to- ANCLOTE BLVD)	CR	01	NC	2U	D	2.416	.00	T	2,766	146	1,440	.101	0	B
470 - BAYSHORE BLVD: (SR 60 -to- MAIN ST)	CL	06	NMC	2U	D	2.463	.00	T	9,307	486	1,440	.338	0	C
476 - BAYSIDE BRIDGE: (SR 686 ROOSEVELT BLVD -to- GULF-TO-BAY BLVD)	CR	08	NA	6D	D	3.598	.00	T	64,680	3,451	5,650	.611	0	C
487 - BECKETT WAY: (US 19 -to- OLD DIXIE HWY)	CR	01	SC	2U	D	.501	2.00	T	4,545	237	559	.424	0	C
489 - BELCHER RD: (BRYAN DAIRY RD -to- ULMERTON RD)	CR	10	SA	6D	D	1.519	1.97	T	21,056	1,100	2,646	.416	0	B
490 - BELCHER RD: (BRYAN DAIRY RD -to- PARK BLVD)	CR	10	SA	6D	D	2.488	.80	T	21,056	1,100	2,646	.416	0	B
491 - BELCHER RD: (ULMERTON RD -to- EAST BAY DR)	CR	07	SA	6D	D	1.527	1.31	T	27,694	1,447	2,646	.547	0	B
492 - BELCHER RD: (EAST BAY DR -to- BELLEAIR RD)	CR	07	SA	4D	D	1.523	1.31	T	29,612	1,547	1,764	.877	0	C
493 - BELCHER RD: (BELLEAIR RD -to- GULF-TO-BAY BLVD)	CR	06	SA	4D	D	1.516	3.96	T	29,612	1,547	1,683	.919	1	D
494 - BELCHER RD: (GULF-TO-BAY BLVD -to- NE COACHMAN RD)	CR	06	SA	4U	D	.805	3.73	T	26,960	1,409	1,599	.881	0	D
495 - BELCHER RD: (NE COACHMAN RD -to- SUNSET POINT RD)	CR	06	SA	4D	D	1.237	.81	T	28,874	1,509	1,764	.855	0	C
496 - BELCHER RD: (SUNSET POINT RD -to- COUNTRYSIDE BLVD)	CR	06	SA	6D	D	1.353	2.22	T	30,789	1,609	2,547	.632	0	C
497 - BELCHER RD: (COUNTRYSIDE BLVD -to- CURLEW RD)	CR	06	SA	4D	D	2.948	1.36	T	21,372	1,117	1,764	.633	0	B
498 - BELCHER RD: (CURLEW RD -to- TAMPA RD)	CR	03	SA	4D	D	1.293	.77	T	20,199	1,055	1,764	.598	0	B
499 - BELCHER RD: (TAMPA RD -to- ALDERMAN RD)	CR	03	SA	4D	D	1.799	1.11	T	22,125	1,156	1,764	.655	0	B
500 - BELCHER RD: (ALDERMAN RD -to- KLOSTERMAN RD)	CR	03	SA	4D	D	1.912	.52	T	16,564	865	1,764	.490	0	B
501 - BELLEAIR BEACH CSWY: (INDIAN ROCKS RD -to- GULF BLVD)	CR	07	SA	2D	D	1.879	.80	T	16,118	842	832	1.012	2	F
502 - BELLEAIR RD: (MISSOURI AVE -to- MLK JR AVE)	CR	07	SMC	2U	D	.252	3.97	T	9,919	518	559	.927	1	D
503 - BELLEAIR RD: (MISSOURI AVE -to- KEENE RD)	CR	07	SMC	2U	D	1.523	1.97	T	9,919	518	572	.906	1	C
504 - BELLEAIR RD: (MLK JR AVE -to- CLWTR-LARGO RD)	CR	06	NMC	2U	D	.374	.00	T	9,919	518	1,440	.360	0	C
505 - BELLEAIR RD: (KEENE RD -to- US 19)	CR	06	SMC	2U	D	1.989	1.02	T	11,403	596	572	1.042	2	F
506 - BELLEVIEW BLVD: (CLWTR-LARGO RD -to- INDIAN ROCKS RD)	BL	07	NMC	2U	D	.249	.00	T	7,847	410	1,440	.285	0	C

Generalized Annual Average Daily Volumes for Florida's Urbanized Areas

TABLE 1

12/18/12

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	16,800	17,700	**	4	47,400	64,000	77,900	84,600	
4	Divided	*	37,900	39,800	**	6	69,900	95,200	116,600	130,600	
6	Divided	*	58,400	59,900	**	8	92,500	126,400	154,300	176,600	
8	Divided	*	78,800	80,100	**	10	115,100	159,700	194,500	222,700	
						12	162,400	216,700	256,600	268,900	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	7,300	14,800	15,600	4	45,800	61,500	74,400	79,900	
4	Divided	*	14,500	32,400	33,800	6	68,100	93,000	111,800	123,300	
6	Divided	*	23,300	50,000	50,900	8	91,500	123,500	148,700	166,800	
8	Divided	*	32,000	67,300	68,100	10	114,800	156,000	187,100	210,300	
90%	4LD			35,820							
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)						Freeway Adjustments					
Non-State Signalized Roadways - 10%						Auxiliary Lanes Present in Both Directions + 20,000		Ramp Metering + 5%			
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	8,600	17,000	24,200	33,300
2	Undivided	No	No	-20%		4	Divided	36,700	51,800	65,600	72,600
Multi	Undivided	Yes	No	-5%		6	Divided	55,000	77,700	98,300	108,800
Multi	Undivided	No	No	-25%							
-	-	-	Yes	+5%							
One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6						Uninterrupted Flow Highway Adjustments					
						Lanes	Median	Exclusive left lanes	Adjustment factors		
						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						¹ Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%	*	2,900	7,600	19,700		* Cannot be achieved using table input value defaults.					
50-84%	2,100	6,700	19,700	>19,700		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%	9,300	19,700	>19,700	**							
PEDESTRIAN MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	2,800	9,500							
50-84%	*	1,600	8,700	15,800							
85-100%	3,800	10,700	17,400	>19,700							
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

Generalized **Peak Hour Two-Way Volumes** for Florida's **Urbanized Areas**¹

12/18/12

TABLE 4

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Lanes					
Lanes	Median	B	C	D	E	4	B	C	D	E	
2	Undivided	*	1,510	1,600	**	6	4,120	5,540	6,700	7,190	
4	Divided	*	3,420	3,580	**	8	6,130	8,370	10,060	11,100	
6	Divided	*	5,250	5,390	**	10	8,230	11,100	13,390	15,010	
8	Divided	*	7,090	7,210	**	12	10,330	14,040	16,840	18,930	
Class II (35 mph or slower posted speed limit)						Freeway Adjustments					
Lanes	Median	B	C	D	E	Auxiliary Lanes		Ramp			
2	Undivided	*	660	1,330	1,410	Present in Both Directions		Metering			
4	Divided	*	1,310	2,920	3,040	+ 1,800		+ 5%			
6	Divided	*	2,090	4,500	4,590						
8	Divided	*	2,880	6,060	6,130						
90% ALD 3220											
Non-State Signalized Roadway Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
(Alter corresponding state volumes by the indicated percent.)						Lanes	Median	B	C	D	E
Non-State Signalized Roadways - 10%						2	Undivided	770	1,530	2,170	2,990
Median & Turn Lane Adjustments						4	Divided	3,300	4,660	5,900	6,530
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		6	Divided	4,950	6,990	8,840	9,790
2	Divided	Yes	No	+5%		Uninterrupted Flow Highway Adjustments					
2	Undivided	No	No	-20%		Lanes	Median	Exclusive left lanes	Adjustment factors		
Multi	Undivided	Yes	No	-5%		2	Divided	Yes	+5%		
Multi	Undivided	No	No	-25%		Multi	Undivided	Yes	-5%		
-	-	-	Yes	+ 5%		Multi	Undivided	No	-25%		
One-Way Facility Adjustment											
Multiply the corresponding two-directional volumes in this table by 0.6											
BICYCLE MODE ²											
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Paved Shoulder/Bicycle											
Lane Coverage	B	C	D	E							
0-49%	*	260	680	1,770							
50-84%	190	600	1,770	>1,770							
85-100%	830	1,770	>1,770	**							
PEDESTRIAN MODE ²											
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	250	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770							
BUS MODE (Scheduled Fixed Route) ³											
(Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							
						¹ Values shown are presented as peak hour two-way volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.					
						² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.					
						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
						* Cannot be achieved using table input value defaults.					
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
						Source: Florida Department of Transportation Systems Planning Office www.dot.state.fl.us/planning/systems/sm/los/default.shtm					

Day Care Center (565)

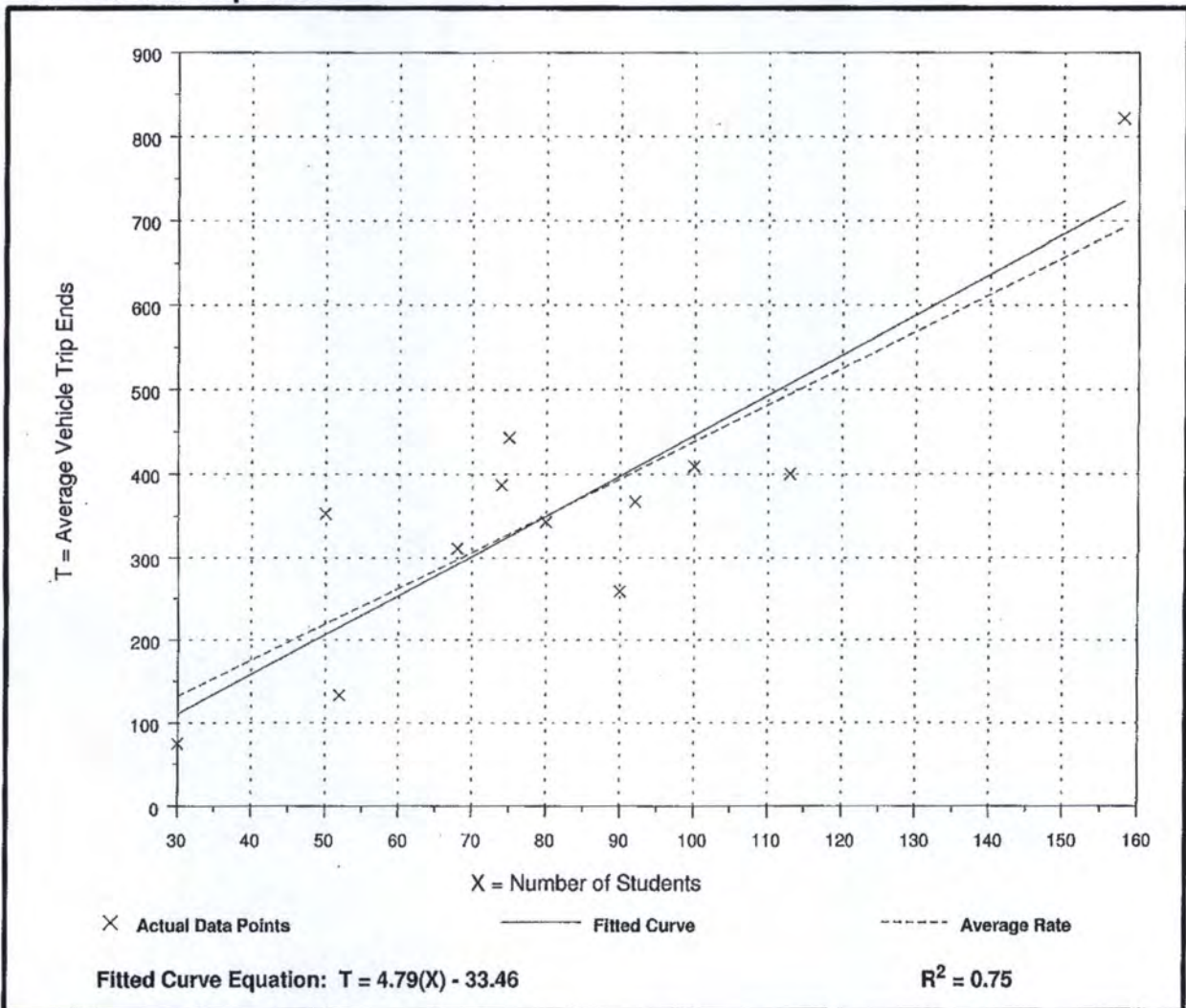
Average Vehicle Trip Ends vs: Students
On a: Weekday

Number of Studies: 12
Average Number of Students: 82
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
4.38	2.50 - 7.06	2.37

Data Plot and Equation



Day Care Center (565)

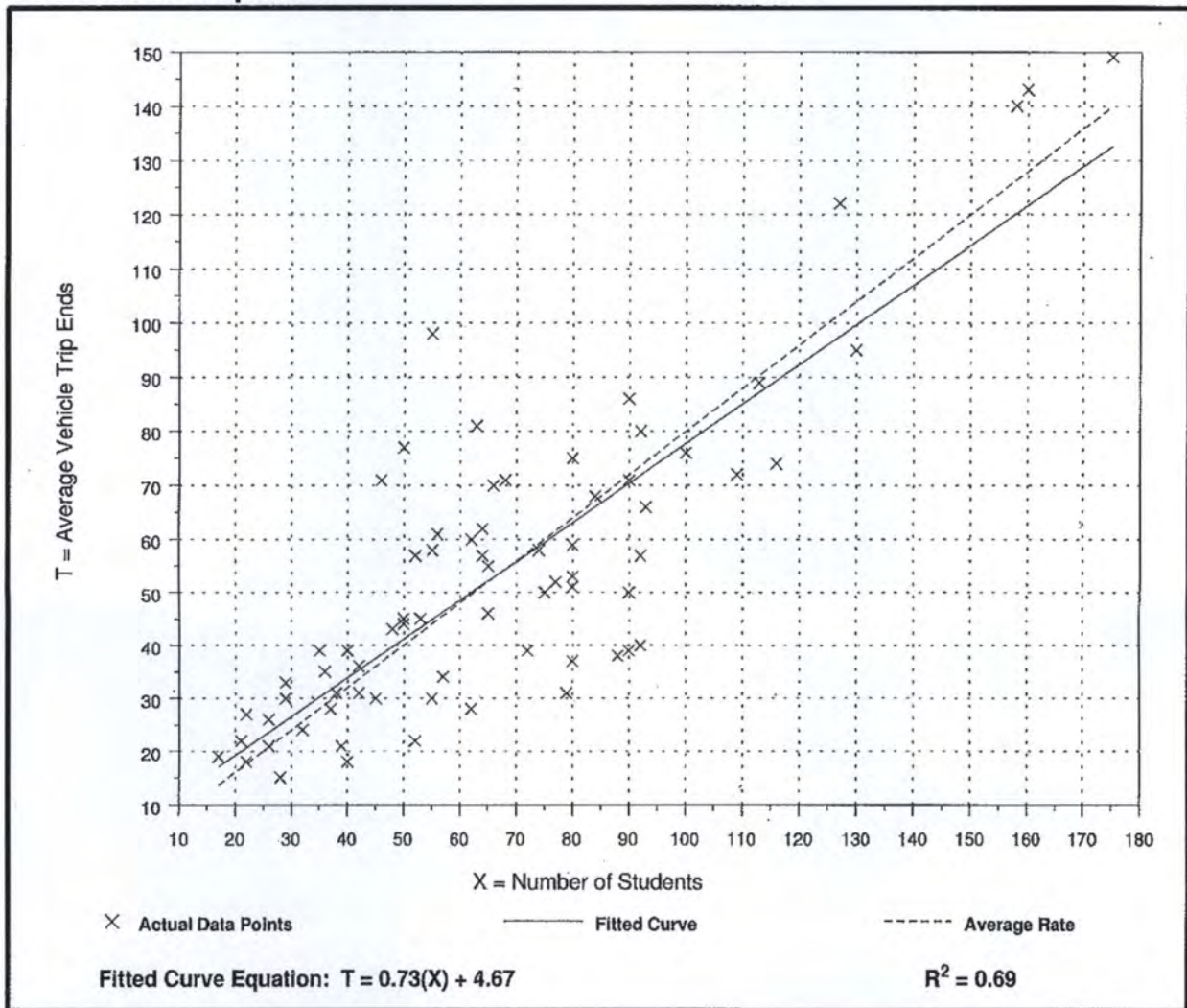
Average Vehicle Trip Ends vs: Students
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 71
 Average Number of Students: 67
 Directional Distribution: 53% entering, 47% exiting

Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.80	0.39 - 1.78	0.92

Data Plot and Equation



Day Care Center (565)

Average Vehicle Trip Ends vs: Students
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 72
 Average Number of Students: 69
 Directional Distribution: 47% entering, 53% exiting

Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.81	0.24 - 1.72	0.94

Data Plot and Equation

