TRAFFIC IMPACT REPORT FOR WATERMARK VILLAS AT SilverRock RANCH CITY OF LA QUINTA

Date: September, 2003
Ref.No. 0308-04

Paul Singer, P.E.
TRANSPORTATION ENGINEERING & PLANNING

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September 9, 2003

Mr. Matt Hladeck
Principal
c/o Fomotor Engineering
225 S. Civic Drive
Palm Springs, CA. 92262

Ref. No. 0308-04R

Subject: Traffic Circulation and Access Impact Assessment for a multi family condominium residential development located in the City of La Quinta, County of Riverside.

Dear Mr. Hladeck:

The following report was prepared in conformance with standards for Traffic Impact and Circulation Assessment study preparation and the City of La Quinta requirements. Discussions regarding this project was held with City staff Mr. Steven Speer. Requirements for the assessment of traffic impacts as a consequence of the proposed project development was discussed and are hereby presented.

Currently the project site is vacant and undeveloped. The study is based on the total number of dwelling units, traffic projected to be generated by those units and traffic distribution to the existing streets in the vicinity of the project area.

The following study evaluates traffic impacts that will be generated by the residential condominium development. The traffic impact of the proposed development will affect adjacent intersections and the corresponding streets. Specific traffic impacts are described in detail within the following report.

Sincerely,

Paul Singer, P.E.

0308-04R

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Existing Conditions:

Project Site:

The project site is located on the northwest corner of Jefferson Street and Avenue 52 in the City of La Quinta. The project site area comprises a total of 21.08 acres. The project will consist of 248 condominium dwelling units. The condominiums will be contained in 31 separate buildings. Each building will contain eight (8) individual dwelling units. Parking is provided on surface parking areas and underground bellow each separate building. Access to the site is proposed from Jefferson Street and from Avenue 52. The proposed project location is shown on **Figure 1, Location Map.**

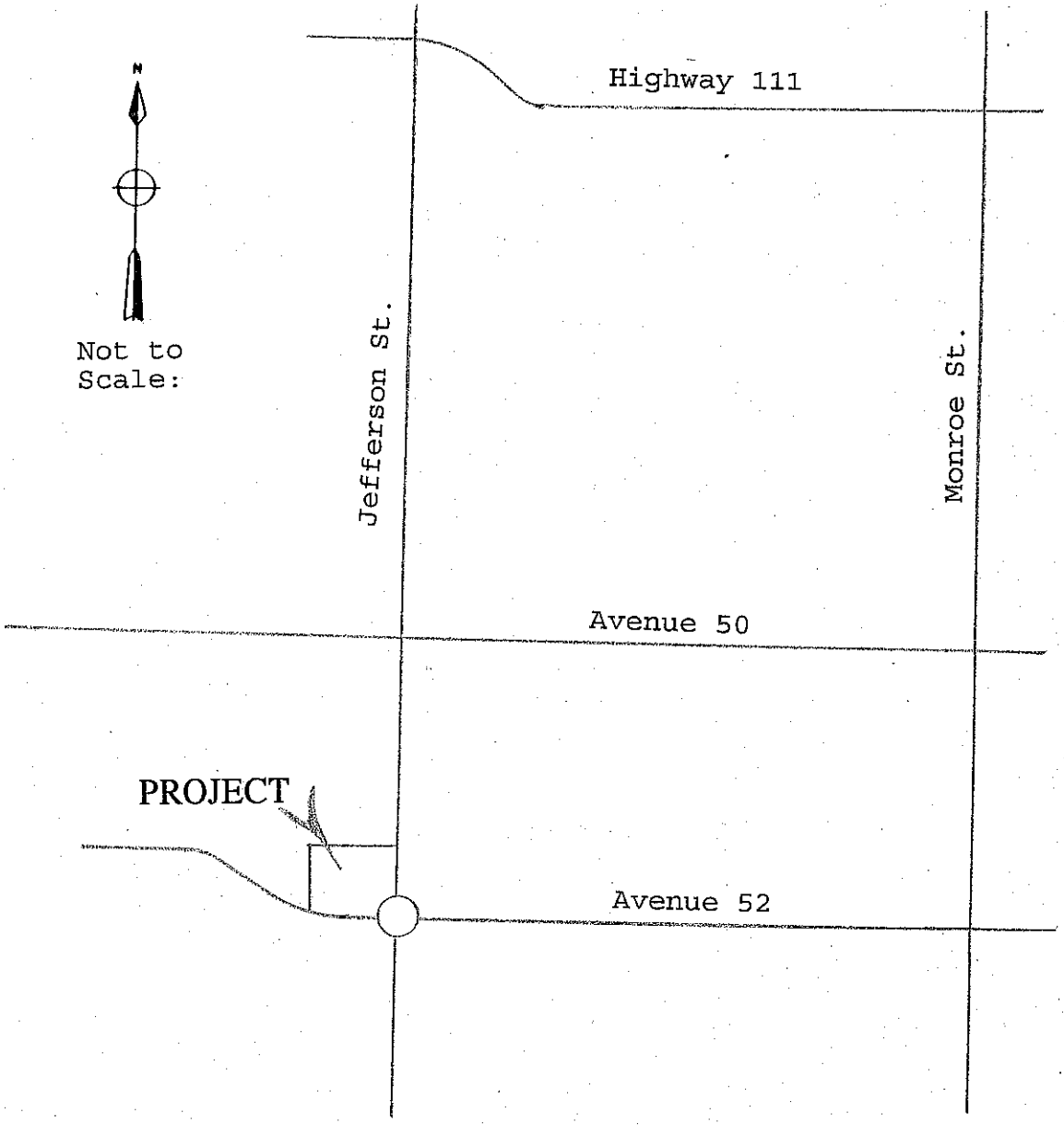
Proposed Project:

The proposed project site is currently vacant, undeveloped land. The project site is intended to be developed for residential, condominium dwelling units. The project site and building layout is shown on **Figure 2.** Access to the proposed site is from Jefferson Street and Avenue 52. Security gates and restricted access is proposed by means of security gates. The project 31 buildings will accommodate a total of 248 dwelling units. Amenities, consisting of a separate restaurant, swimming pools, tennis courts, extensive landscaping and project office will be provided.

Parking is provided for each individual condominium dwelling unit plus guest parking facilities. A total of 661 parking spaces will be provided. Separate parking will be available for guests and visitors.

The parking ratio for the entire apartment complex is approximately two parking spaces per dwelling unit. Additional parking is provided for guests and visitors. Parking will be provided on site commensurate with the City of La Quinta Ordinances.

Internal circulation and parking is designed to be in conformance with the City of La Quinta access and circulation. The residential complex is designed to accommodate waste pick-up access for sanitation vehicles. Emergency vehicle access is accommodated along the periphery of the project driving areas and parking spaces.



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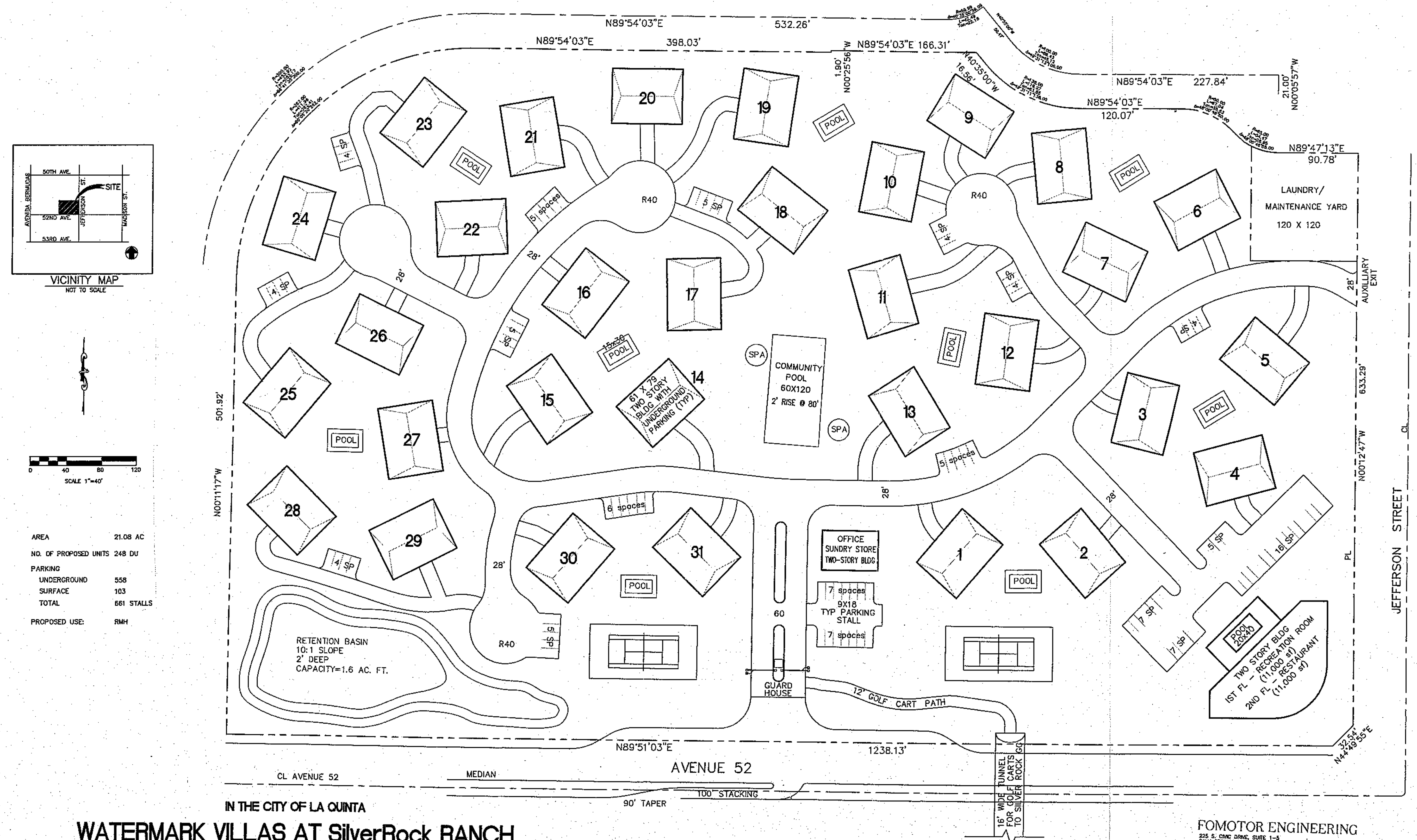
LOCATION MAP

Fig.1



IN THE CITY OF LA QUINTA

WATERMARK VILLAS AT SilverRock RANCH

CONCEPTUAL PLAN - ALTERNATIVE 2-2

(UNDERGROUND PARKING + STREET PARKING)

JUNE 26, 2003

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SITE PLAN

Fig.2

Traffic Study:

To determine traffic impacts and the related traffic mitigation measures, a traffic impact study was conducted at the nearest adjacent intersection. Manual traffic counts obtained from City files were used at the study intersection. The intersection of Jefferson Street and Avenue 52 will be impacted by the proposed project at build-out. (Detail is shown on **Table 1**).

Traffic count data was used to determine existing Levels Of Service at the study intersection. Traffic projected to be generated by the proposed project was added to the existing traffic. Traffic generation estimates are based on information obtained from the Institute of Transportation Engineers Traffic Generation Manual, Sixth Edition.

Traffic count data collection and intersection analysis was conducted at the following five intersections:

Jefferson Street and Avenue 52

The study intersection is constructed as a roundabout. This configuration is dissimilar to either an all-way stop or signalized intersection. In order to provide an estimate of traffic operation capacity, the methodology for an all-way stop sign controlled location was substituted.

Estimates of post project traffic volumes and traffic conditions were projected at project build out and post project Levels Of Service were estimated using the Intersection Capacity Utilization Methodology. The methodology used in calculating Level of Service at the study intersection was compared to all-way stop conditions.

Study Methodology:

The existing traffic conditions in the immediate vicinity of the proposed project were evaluated. Traffic counts were conducted at peak traffic hours in the AM and PM. peak traffic hours at the study intersection.

The traffic counts are used to establish existing traffic volumes and determine requirements for any project related traffic mitigation measures.

Traffic generated by the project was distributed to the existing streets and post project traffic conditions estimated.

Existing traffic count data and LOS calculation sheets are included in the appendix of this report on the traffic count sheets.

Existing Traffic:

Traffic counts were conducted at the morning and evening street traffic peak hours at the study intersection. Information was obtained from City of La Quinta archives. The counts were conducted on weekday, January 14, 2003. Weekday was chosen to represent typical scenario for daily traffic demands. The Month of January is concurrent with the high seasonal traffic demand in the Coachella Valley. The results of the count study are shown on the count field sheets in the appendix of this report.

Under existing conditions, the study intersection operation is satisfactory. The study intersection operates at Level of Service "A" or better, at free flow conditions. The results of the findings of existing traffic data are shown on **Table 1.**

Table 1
Existing Level of Service
at
Study Intersections.

Location:	**Existing Level of Service**			
	AM		**PM**	
	V/C	**LOS**	**V/C**	**LOS**
Jefferson St. and Ave. 52	0.34	A	0.36	A

As shown on **Table 1**, existing traffic at the study intersection operate at Levels Of Service "A" free flow conditions.

Future Conditions:

Study Determination:

The project is subject to all regulations, ordinances and plans promulgated by the City of La Quinta.

The proposed project consists of a multi building condominium residential complex development. The traffic impacts and Level of Service at the study intersection, for the proposed residential use and the ancillary amenities is presented and summarized in **Table 2**.

Traffic impacts are based on calculations using the Intersection Capacity Utilization methodology, (ICU). Project traffic generation was obtained from the Institute of Transportation Engineers, Traffic Generation Manual, Sixth Edition. Copy is included in the appendix of this report.

Traffic Generation of Project:

The project traffic impact of the proposed development condominium residential project site was carefully evaluated. Traffic generated by the proposed project was analyzed and calculated based on traffic generated from the proposed land use.

Trip Generation Rates:

The number of aggregate trips generated by the proposed condominium residential land uses are presented along with traffic impact mitigation measures.

The project site is designed to accommodate 31 individual buildings. Each building will accommodate eight (8) dwelling units. A total of 661 parking spaces at grade level and at subterranean parking garages will be available.

Trip generation rates were obtained from the Institute of Transportation Engineers "Traffic Generation Manual". The trip generation rates for the proposed residential uses at the project site were obtained from the details of the Traffic Generation Manual schedule number (223). Copy is enclosed in the appendix of this report. The restaurant located on the project site is for the exclusive use of the residents and their guests. Addition trip generation for the restaurant was therefore unnecessary.

Trip generation was calculated using the aggregate number of proposed dwelling units within the proposed buildings producing the aggregate trip generation of the project.

Traffic generated by the project was calculated for the AM and PM peak traffic hours. During peak traffic times the area roadways are generally most heavily traveled. Using the traffic peak times therefore, presents the maximum traffic impact and worst case scenario on which to base the assessment of any mitigation measures that may be required to facilitate project traffic.

The Traffic Generation Manual, Schedule (231), Low-Rise Condominium indicates the following rates per condominium dwelling unit:

Table 2
Project Traffic Generation

Jefferson Street and Avenue 52		AM peak hour	PM peak hour
*Total number of buildings: 31			
Total number of dwellings: 248			
Total no. of trips in and outbound:		163	206
AM peak hour	in-bound:	20	
	out-bound:	61	
PM peak hour	in-bound:		57
	out-bound:		45

* Note: Eight units per building.

Trip generation rate: AM peak hour: 0.83 / unit = 25% in 75% out
PM peak hour: 0.51 / unit = 57% in 43% out
Weekday: 0.66 / unit

See copies of trip generation data from the I.T.E. Traffic Generation Manual, sixth edition, Schedule 231 enclosed in the Appendix of this report.

Trip Distribution:

The weekday AM peak hour and PM peak hour at the study intersection was used for traffic impact calculations. As previously stated, the intersection is configured as a around-about. Traffic approaching the study intersection of Jefferson Street and Avenue 52 slows to approaching speed at a significantly low rate. The study therefore assumed the worst case scenario by applying the all-way stop condition to the Level of Service calculations.

At the study intersection, the morning and evening peak hours on a typical weekday represent the worst case scenario. Project site percentage distribution is shown on **Figure 3.**

Project traffic was distributed to the area intersections for AM and PM peak traffic hours. Based on this projection, future, post project traffic Levels of Service at the study intersection is estimated.

Traffic Volumes from Project:

Traffic that will be generated by the project was estimated using the Traffic Generation Manual 6th Edition published by the Institute of Transportation Engineers shown above in **Table 2**.

Calculations based on the existing traffic was added to the projected traffic that will be generated by the project when completed.

The projected traffic Level of Service was estimated and is shown on **Table 3.** Traffic generated by this scenario was calculated at existing peak traffic hours and at post project traffic peak hours. Specific Intersection Capacity Utilization (ICU) calculation sheets are enclosed in the appendix of this report.

Table 3
Proposed Project
Traffic.

Intersection:	Existing Traffic:				Traffic with Project:			
	AM		PM		AM		PM	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Jefferson Street and Avenue 52	0.34	A	0.36	A	0.37	A	0.42	A

Following completion and full occupancy of the proposed project, traffic impact analysis estimates only minor traffic volume impacts at the study intersection. The intersection will continue operating at Level of Service "A" or better.

Project generated traffic will increase existing demand only to a small extent. The proposed land use, residential condominium occupancy, will have only a slight traffic generation impact as indicated on **Table 3.**

The study intersection at AM and at PM peak traffic hours indicates a Level of Service "A" or better before and following completion of project.

Traffic Characteristics:

The proposed project is located adjacent to an intersection of two arterial streets. The intersection is configured as a "roundabout" or an intersection constructed with a circular median island at the confluence of two through streets.

Traffic entering the intersection may proceed in a continuous right turn and choose the direction in which to exit. For example, a vehicle traveling in a north bound direction will traverse the traffic circle for one half its distance. A vehicle traveling north could choose to proceed south, east, west or return in a northerly direction. Traversing a traffic circle or as it is commonly known as a roundabout, may be accomplished with no or only minimal delay.

Traffic Mitigation Measures:

Street improvements adjacent to the project will be undertaken as an integral part of the project site construction in accordance with County of Riverside standards.

Avenue 52:

As a required mitigation measure, median island construction is required along the project frontage on Avenue 52. Existing median islands already exist and are located on Jefferson Street.

The proposed median island on Avenue 52 may be constructed with a median opening to permit vehicles to enter the project site. Vehicles existing the Avenue 52 private gate area may only turn right. Left turns will be precluded by the median island.

Jefferson St.

The existing median island will preclude and limit entry and exit to the project by right in and right out vehicle ingress, egress only.

Conclusions:

Project Traffic Impact:

The proposed project consisting of 248 condominium dwelling units will not deteriorate existing traffic at the study intersection of Avenue 52 and Jefferson Street.

The study intersection, as indicated on **Table 3**, will largely be affected by only a minimum increase in traffic volumes. At post project conditions, the affected intersection will continue to operate at Level of Service "A" or free flow conditions.

Traffic characteristics as well as prevailing traffic volumes will be only marginally affected. Efficient traffic flows along the existing street system with existing traffic control devices will be sufficient to provide adequate service for area traffic. The study indicates that the Level Of Service at the study intersection will not materially change following the construction and occupancy of the proposed project.

APPENDIX

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TRANSPORTATION ENGINEERING & PLANNING

TABLE III-3
INTERSECTION LEVEL-OF-SERVICE DEFINITIONS[1]

Level of Service	Interpretation	Intersection Capacity Utilization[2]
A	Uncongested operations; all vehicles clear in a single cycle.	0.00-0.60
B	Uncongested operations; all vehicles clear in a single cycle.	0.61-0.70
C	Light congestion; occasional backups on critical approaches.	0.71-0.80
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	0.81-0.90
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.91-1.00
F	Total breakdown with stop-and-go operations.	1.01+

NOTES:

(1) Source: Highway Capacity Manual,
(2) Intersection Capacity Utilization

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: Watermark Villas
INTERVAL: AM PEAK HOUR
INTERSECTION: Jafferson St. at ison St

MOVEMENT	EXIST LANES	PROP LANES	EXISTING CAPACITY	PROPOSED CAPACITY	EXISTING VOLUME	OTHER VOLUME	PROJECT VOLUME	EXISTING V/C		EXISTING + OTHER V/C		EX.+ OTHER + PROJECT V/C		EX.+ OTHER + PROJECT V/C-W_IMP	
NL	1	1	1700	1700	0	0	0	0.00	*	0.00	*	0.00	*	0.00	*
NT	2	2	3400	3400	378	0	20	0.11		0.11		0.12		0.12	
NR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
SL	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
ST	2	2	3400	3400	475	0	61	0.14	*	0.14	*	0.16	*	0.16	*
SR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
EL	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
ET	2	2	3400	3400	515	0	20	0.15	*	0.15	*	0.16	*	0.16	*
ER	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
WL	1	1	1700	1700	0	0	0	0.00	*	0.00	*	0.00	*	0.00	*
WT	2	2	3400	3400	261	0	61	0.08		0.08		0.09		0.09	
WR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
								0.14		0.14		0.16		0.16	
								0.15		0.15		0.16		0.16	
								0.05		0.05		0.05		0.05	
								0.34		0.34		0.37		0.37	
								A		A		A		A	

ICU SPREADSHEET FILE NAME: La Quinta

NORTH/SOUTH CRITICAL SUMS =

EAST/WEST CRITICAL SUMS =

CLEARANCE =

ICU VALUE =

LOS =

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

PROJECT: Watermark Villas
INTERVAL: PM PEAK HOUR
INTERSECTION: Jefferson St. & Avenue 52

MOVEMENT	EXIST LANES	PROP LANES	EXISTING CAPACITY	PROPOSED CAPACITY	EXISTING VOLUME	OTHER VOLUME	PROJECT VOLUME	EXISTING V/C		EXISTING + OTHER V/C		EX.+ OTHER + PROJECT V/C		EX.+ OTHER + PROJECT V/C-W_IMP	
NL	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
NT	2	2	3400	3400	561	0	57	0.17	*	0.17	*	0.18	*	0.18	*
NR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
SL	1	1	1700	1700	0	0	0	0.00	*	0.00	*	0.00	*	0.00	*
ST	2	2	3400	3400	477	0	45	0.14		0.14		0.15		0.15	
SR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
EL	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
ET	2	2	3400	3400	488	0	57	0.14	*	0.14	*	0.16	*	0.16	*
ER	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
WL	1	1	1700	1700	0	0	45	0.00	*	0.00	*	0.03	*	0.03	*
WT	2	2	3400	3400	223	0	0	0.07		0.07		0.07		0.07	
WR	1	1	1700	1700	0	0	0	0.00		0.00		0.00		0.00	
				NORTH/SOUTH CRITICAL SUMS =				0.17		0.17		0.18		0.18	
				EAST/WEST CRITICAL SUMS =				0.14		0.14		0.19		0.19	
				CLEARANCE =				0.05		0.05		0.05		0.05	
				ICU VALUE =				0.36		0.36		0.42		0.42	
				LOS =				A		A		A		A	

ICU SPREADSHEET FILE NAME: La Quinta

N = NORTHBOUND, S = SOUTHBOUND
E = EASTBOUND, W = WESTBOUND
L = LEFT, T = THROUGH, R = RIGHT
N.S. = NOT SIGNALIZED
LOS = LEVEL OF SERVICE
* DENOTES CRITICAL MOVEMENTS

CITY OF LA QUINTA
N/S: JEFFERSON STREET
E/W: 52ND AVENUE
24 HR ENTERING VOLUME COUNT

Counts Unlimited, Inc.
909.247.6716

Site Code : 2913109115
Start Date: 01/14/2003
File I.D. : LQJE52NS
Page : 1

NORTH/SOUTH

Begin Time	NBND A.M.		NBND P.M.		SBND A.M.		SBND P.M.		Combined A.M.		Combined P.M.		Tuesday
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12:15	4		104		5		97		9		201		
12:30	3		93		2		83		5		176		
12:45	1	8	108	436	4	16	112	382	5	24	220	818	
01:00	2		102		8		86		10		188		
01:15	1		124		1		89		2		213		
01:30	1		111		5		73		6		184		
01:45	4	8	116	453	4	18	91	339	8	26	207	792	
02:00	1		119		2		93		3		212		
02:15	1		130		0		123		1		253		
02:30	1		125		2		107		3		232		
02:45	2	5	118	492	1	5	152	475	3	10	270	967	
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03:15	2		137		1		117		3		254		
03:30	1		134		3		134		4		268		
03:45	3	6	130	561	1	5	118	477	4	11	248	1038	
04:00	4		111		2		116		6		227		
04:15	3		120		6		106		9		226		
04:30	10		123		8		113		18		236		
04:45	17	34	152	506	9	25	94	429	26	59	246	935	
05:00	14		109		17		115		31		224		
05:15	26		116		30		91		56		207		
05:30	18		93		34		83		52		176		
05:45	33	91	82	400	48	129	63	352	81	220	145	752	
06:00	33		81		62		58		95		139		
06:15	50		52		93		62		143		114		
06:30	64		37		127		50		191		87		
06:45	61	208	46	216	133	415	40	210	194	623	86	426	
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07:15	83		26		129		40		212		66		
07:30	86		26		111		35		197		61		
07:45	105	374	17	114	101	475	23	139	206	849	40	253	
08:00	91		21		93		32		184		53		
08:15	98		10		99		46		197		56		
08:30	97		19		95		49		192		68		
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10:00	96		5		80		26		176		31		
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10:30	90		7		80		16		170		23		
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11:15	105		5		80		5		185		10		
11:30	100		3		106		12		206		15		
11:45	113	409	4	22	83	360	4	37	196	769	8	59	
Totals	2314		3329		2462		3166		4776		6495		
Day Totals		5643				5628				11271			
Split %	40.4%		59.2%		51.5%		48.7%						

Peak Hour	11:00		01:00		06:30		02:45	
Volume	409		561		523		511	
P.H.F.	.90		.87		.97		.84	
					07:00		02:45	
					849		1060	
					.90		.98	

CITY OF LA QUINTA
N/S: JEFFERSON STREET
E/W: 52ND AVENUE
24 HR ENTERING VOLUME COUNT

Counts Unlimited, Inc.
909.247.6716

Site Code : 2913101111
Start Date: 01/14/2003
File I.D. : LQUE52EW

EAST/WEST

Begin Time	<------ EBND		------><------ WBND		------><------ Combined		------> Tuesday	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		
12:00 01/14	3	87	5	38	8	125		
12:15	4	77	3	36	7	113		
12:30	3	83	2	31	5	114		
12:45	3 13	76 323	4 14	35 140	7 27	111 463		
01:00	3	79	2	38	5	117		
01:15	6	75	2	42	8	117		
01:30	0	91	1	43	1	134		
01:45	2 11	100 345	7 12	43 166	9 23	143 511		
02:00	3	99	0	50	3	149		
02:15	1	123	2	56	3	179		
02:30	4	102	1	47	5	149		
02:45	4 12	122 446	3 6	58 211	7 18	180 657		
03:00	3	110	1	54	4	164		
03:15	6	138	1	75	7	213		
03:30	3	124	0	55	3	179		
03:45	9 21	116 488	3 5	72 256	12 26	188 744		
04:00	10	98	7	69	17	167		
04:15	19	93	8	72	27	165		
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04:45	15 58	107 390	17 36	67 260	32 94	174 650		
05:00	28	88	24	58	52	146		
05:15	58	72	42	63	100	135		
05:30	51	67	27	53	78	120		
05:45	71 208	63 290	40 133	49 223	111 341	112 513		
06:00	69	75	36	44	105	119		
06:15	126	62	74	40	200	102		
06:30	112	66	81	29	193	95		
06:45	136 443	50 253	70 261	34 147	206 704	84 400		
07:00	138	37	64	35	202	72		
07:15	158	48	74	26	232	74		
07:30	117	35	67	15	184	50		
07:45	102 515	37 157	33 238	23 99	135 753	60 256		
08:00	91	40	22	20	113	60		
08:15	98	49	44	23	142	72		
08:30	75	34	37	22	112	56		
08:45	80 344	51 174	32 135	26 91	112 479	77 265		
09:00	72	31	30	11	102	42		
09:15	79	24	28	25	107	49		
09:30	68	17	37	17	105	34		
09:45	68 287	23 95	28 123	13 66	96 410	36 161		
10:00	74	14	40	12	114	26		
10:15	95	22	31	8	126	30		
10:30	64	20	39	6	103	26		
10:45	89 322	22 78	39 149	13 39	128 471	35 117		
11:00	77	12	31	15	108	27		
11:15	77	14	23	3	100	17		
11:30	77	10	30	9	107	19		
11:45	95 326	8 44	49 133	6 33	144 459	14 77		
Totals	2560	3083	1245	1731	3805	4814		
Day Totals	5643		2976		8619			
Split %	67.2%	64.0%	32.7%	35.9%				

Peak Hour	06:45	02:45	06:15	03:15	06:30	03:15
Volume	549	494	289	271	833	747
P.H.F.	.86	.89	.89	.90	.89	.87

Land Use: 231
Low-Rise Residential Condominium/Townhouse

Description

Low-rise residential condominiums/townhouses are units located in buildings that have one or two levels (floors). **Both condominiums and townhouses are included in this land use.**

Additional Data

The peak hour of the generator typically coincides with the peak hour of the adjacent street traffic.

The sites were surveyed from the late 1970s to the late 1980s throughout the United States.

Source Numbers

187, 192, 305, 306

Low-Rise Residential Condominium/Townhouse
(231)

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

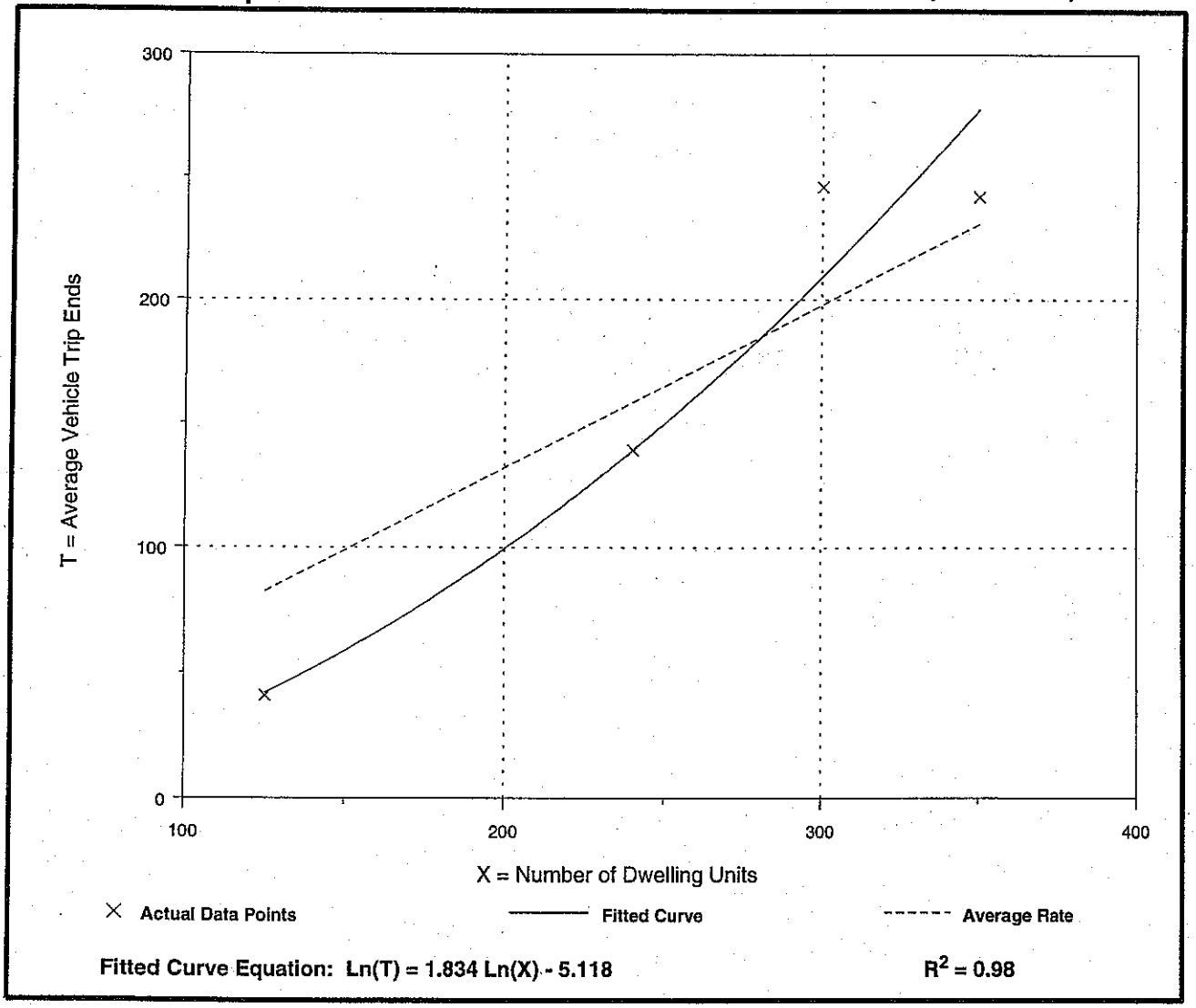
Number of Studies: 4
Avg. Number of Dwelling Units: 254
Directional Distribution: 25% entering, 75% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.66	0.33 - 0.82	0.82

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Ln(T) = 1.834 Ln(X) - 5.118

R^2 = 0.98

Low-Rise Residential Condominium/Townhouse
(231)

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

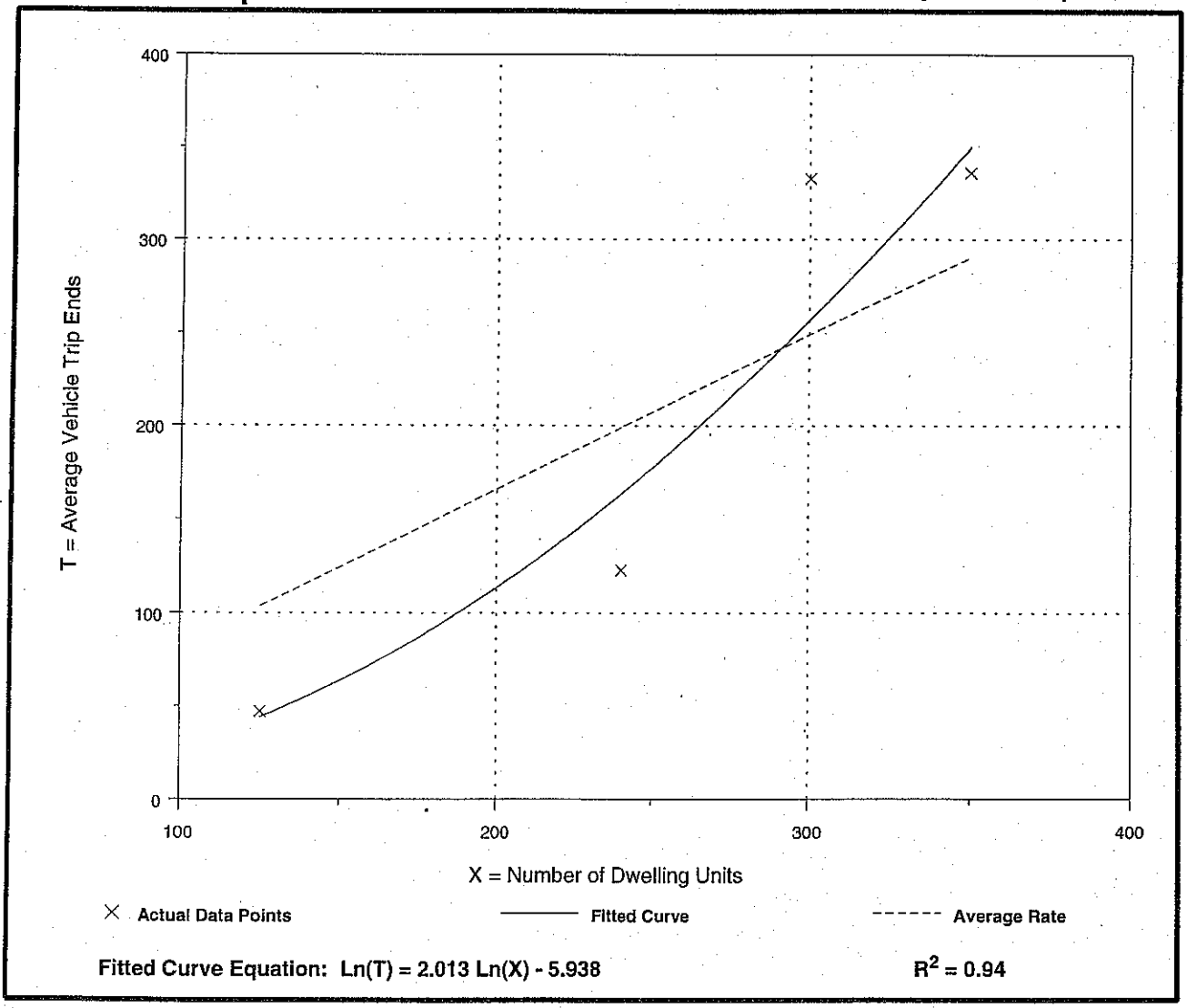
Number of Studies: 4
Avg. Number of Dwelling Units: 254
Directional Distribution: 57% entering, 43% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.83	0.38 - 1.11	0.95

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Ln(T) = 2.013 Ln(X) - 5.938

R^2 = 0.94