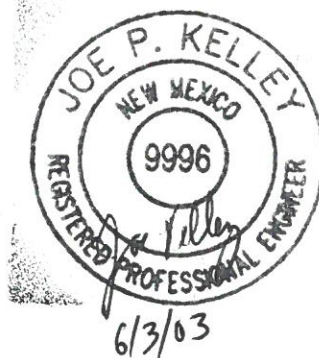


C17D115

Traffic Impact Analysis
for Otoño Plaza at the
Southeast Corner of Alameda (NM 528)
and Jefferson
in Albuquerque, New Mexico



June, 2003

Table of Contents

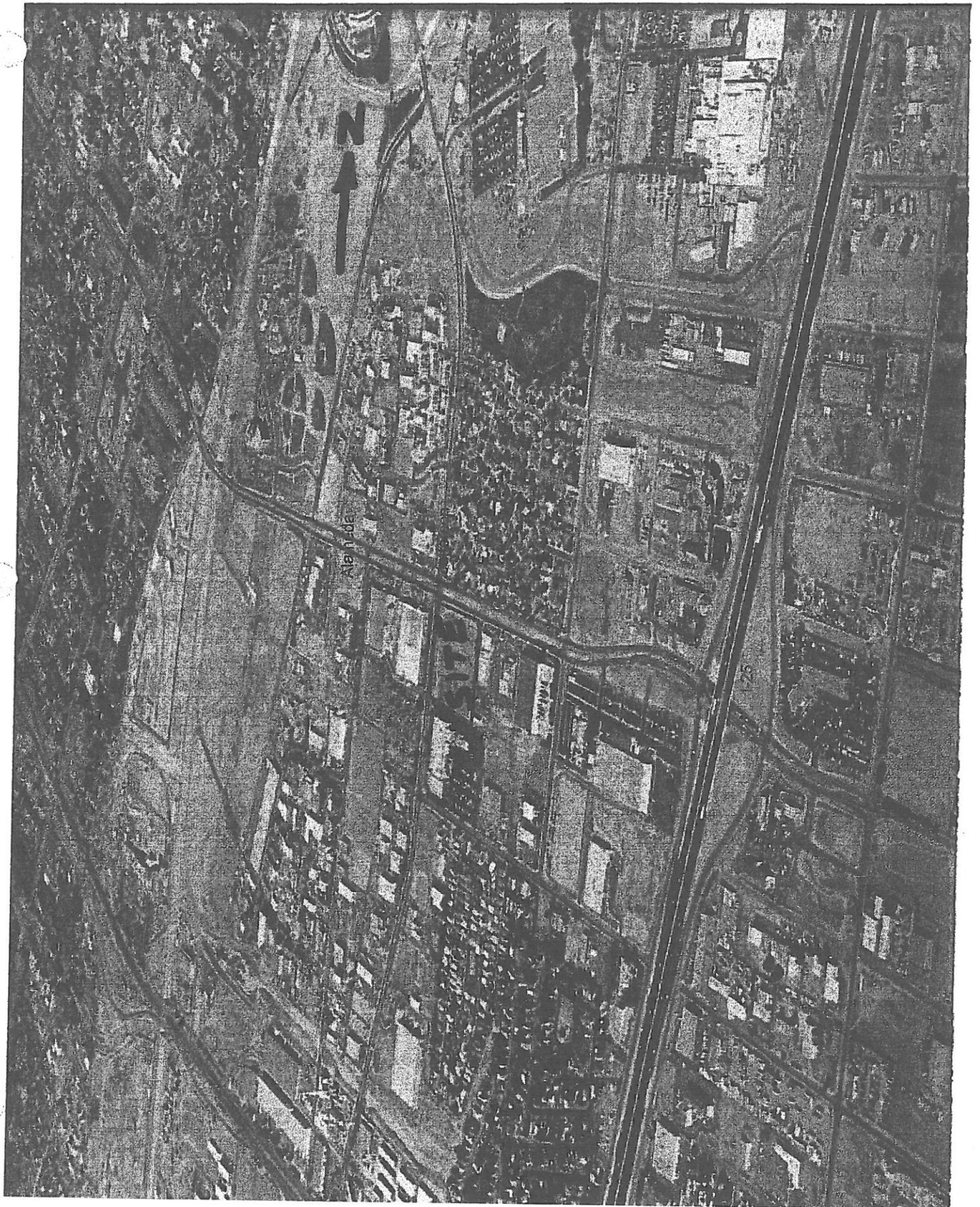
Purpose	3
Area Description	3
Development Plan.....	3
Existing Traffic Volume and LOS.....	4
Trip Distribution and LOS	4

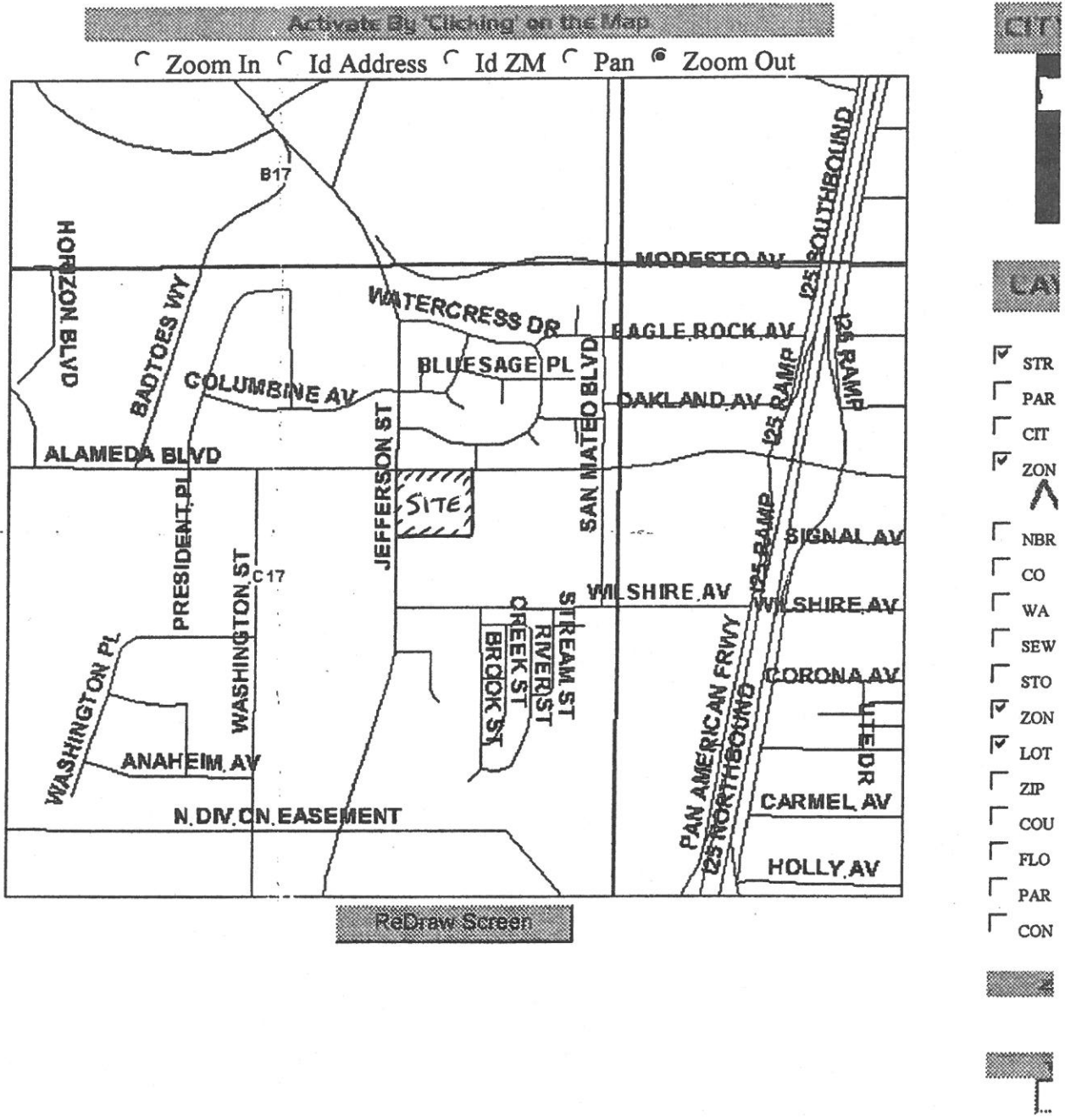
Data and Exhibits

Square Footage Summary	A-1
Existing Volumes, Directional Percentages, and LOS Summary	A-2
Developed Volumes and LOS Summary	A-4
Peak Hour Calculations	A-6
Trip Generation	A-12
Trip Distribution and Assignment	A-13
Computerized LOS Calcs	A-19

Attachment in Back Pocket

Site Plan





FULL VIEW

NEW QUERY

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Purpose

The purpose of this report is to determine the impact that a proposed site will have on the street system of the City of Albuquerque, NM, in accordance with the requirements of the North I-25 Sector Development Plan. This traffic impact analysis is an update of an analysis performed in 2001 for the NMSHTD, to gain approval of the construction of a left-turn median opening in the median on Alameda. That TIA was approved, and the median opening has been constructed.

Area Description

As indicated on the area map on page 2, the project is located about one mile west of I-25 on Alameda Street (NM 528) in northern Albuquerque. Looking at the aerial photo on page 1, it can be seen that the site is surrounded by a variety of development. There is an older residential development north of Alameda, and growing commercial and industrial sites in the remainder of the nearby area.

Alameda fronts the site, and consists of a 124' wide right-of-way that has been developed with concrete curb and gutter and sidewalks on both sides of the street. A 48' wide median has been constructed in the middle, and is formed by asphalt curbs. The median is not paved or landscaped. As shown on T-2, openings have been cut into the median for business driveways and for streets.

The site also fronts on another public City of Albuquerque street: Jefferson Avenue. Jefferson has an 86' wide right-of-way that has been entirely built out, with curb and gutter and sidewalk on both sides. The median in the middle is about 17' wide, and is paved with concrete.

South of the existing vacant site, there is a business called Transcore Amtech Technology Center. Transcore was contacted as part of this study, and they manufacture electrical components. They have several shifts that come and go at non-peak hours. Transcore's north driveway is directly adjacent to the subject property, and is in an access easement. The subject property also has a platted access easement next to Transcore's driveway. It is anticipated that the median opening in Jefferson can be accessed via that easement.

Development Plan

It is planned to develop the subject 5-acre site as an Office Park. The planned gross building area is 46,473 square feet. There will be multiple single buildings surrounded by parking, as indicated on the site plan in the back pocket.

The ITE trip generation category that best fits this use is category 710, General Office Building (see A-12).

Existing Traffic Volume and LOS

Traffic counts were conducted on February 7, 2001 at the three intersections pertinent to the access of this site. The result of these counts is summarized on the Traffic Exhibits beginning on page A-2, while the actual statistics are on page A-6. It was observed that the existing traffic is a mixture of automobiles and trucks. As would be expected, there was a fairly high percentage of heavy vehicles—perhaps 20%. There was a surprisingly large proportion of turning vehicles at the signalized intersection. And the two driveway/street intersections located approximately 600' to the east and south were found to be very low-volume.

The Level of Service (LOS) for each of the existing intersections was computed using a computerized version of the Highway Capacity Manual. The LOS is summarized on the Traffic exhibits, while computer print-outs of some of the calculations begin on page A-19. The driveway/street intersections are sufficiently served with Two-Way Stop Control (TWSC). Those intersections also have good visibility.

The signalized intersection operated at a LOS of C to D during the peak hour. However, the signal is fully actuated according to the City of Albuquerque. This was apparent from field observation as well, as the signal had fairly snappy operation, and the queues were not very long during the peak hour. So even though the signal computed a fairly poor LOS, it seemed to operate on a strong C level. As demonstrated in the LOS calculations, the signal timing can be adjusted to enhance the intersection performance.

Trip Distribution and LOS

The ratio of incoming/outgoing trips was computed in accordance with the Trip Generation Manual. The trips were distributed proportional to the directional traffic on the road—see the percentages noted on pages A-2 and following. The entire site was viewed as a node, and the existing trips into and out of the node were used to allocate the new trips. New trips were added to the traffic flow. It was conservatively assumed that the site would not draw any vehicles from the existing traffic stream.

As the LOS calculations indicate, the site has little impact on the operation of the adjoining roads. The existing traffic volumes are already mid-range, so a little more traffic is of minor consequence.

APPENDIX

Joe Kelley

From: Jud Cervenak [jud@jwcervenak.com]
Sent: Thursday, May 15, 2003 10:48 AM
To: 'Joe Kelley'
Subject: Otono

Joe,

Here's the base drawing.

As for square footage, here is a breakdown of the buildings.

Vacant Lot A: 12,000sf retail/office projected on the northwest corner, there would also be a 3,000 sf +/- bank site at the south end of this lot.

Building B: 7,320 sf - office/retail
Building C: 10,137 sf - office
Buildings D&E: 7,008 sf each - office

Let me know if you need anything else.

Jud

TOTAL = 46,473

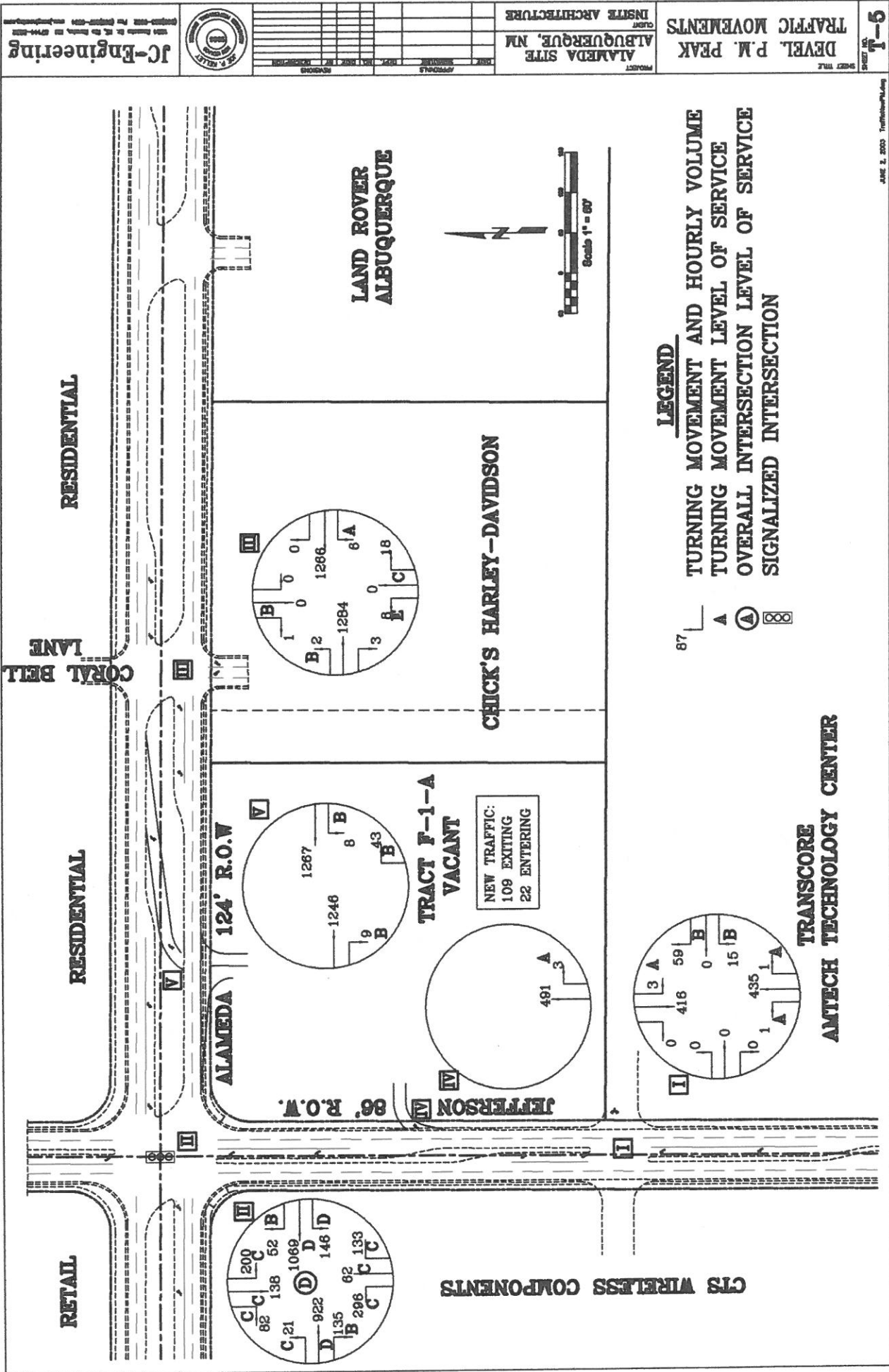
5/15/2003

A-1



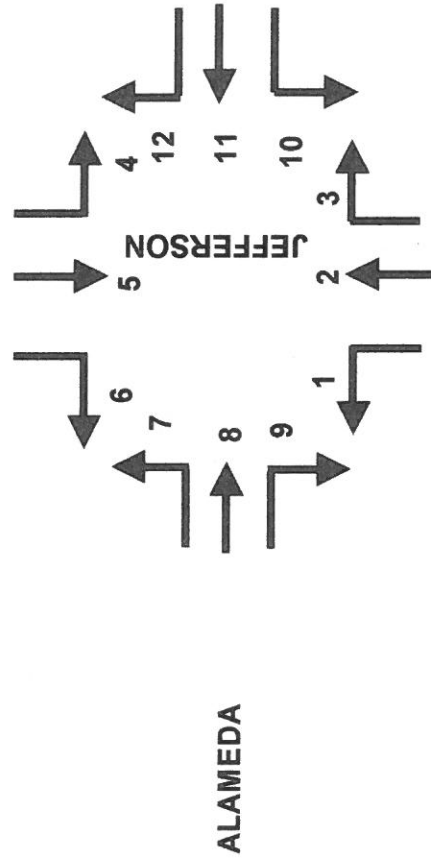






Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 7:15 a.m.

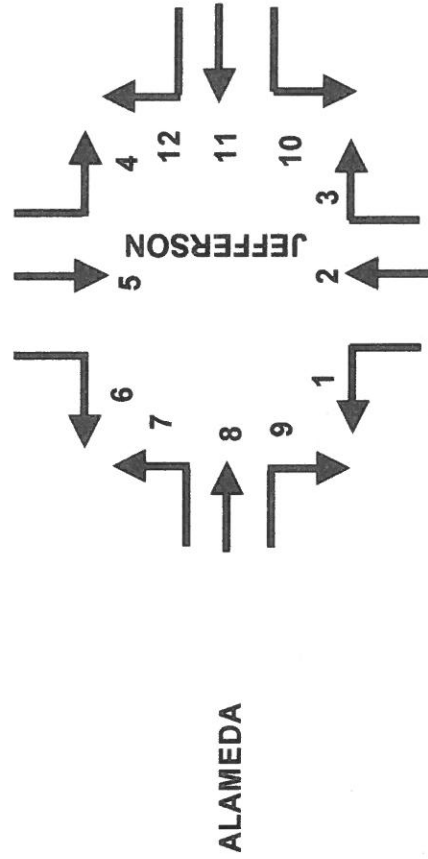
	Northbound			Southbound			Eastbound			Westbound			Total
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)	
6:30-6:45	17	23	13	14	1	5	19	160	29	15	156	23	475
6:45-7:00	36	23	19	21	6	0	27	203	36	9	117	26	523
7:00-7:15	19	22	14	27	13	4	36	185	36	13	96	27	492
7:15-7:30	26	25	19	18	8	5	21	228	40	19	156	34	599
7:30-7:45	30	30	21	9	11	9	26	244	48	19	136	26	609
7:45-8:00	27	23	24	17	18	4	33	234	43	14	147	35	619
8:00-8:15	21	23	23	19	16	7	40	249	22	26	178	38	662
8:15-8:30	13	16	21	4	10	0	25	163	29	10	134	27	452
8:30-8:45	26	22	12	23	9	4	16	110	25	14	142	31	434
8:45-9:00	23	18	25	17	7	7	13	148	26	8	149	19	460
Pk Hr Traf.:	104	101	87	63	53	25	120	955	153	78	617	133	2489
# of lanes:	1	2		1	2		1	2		1	2		



Peak Hour Determination

Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 4:15 p.m.

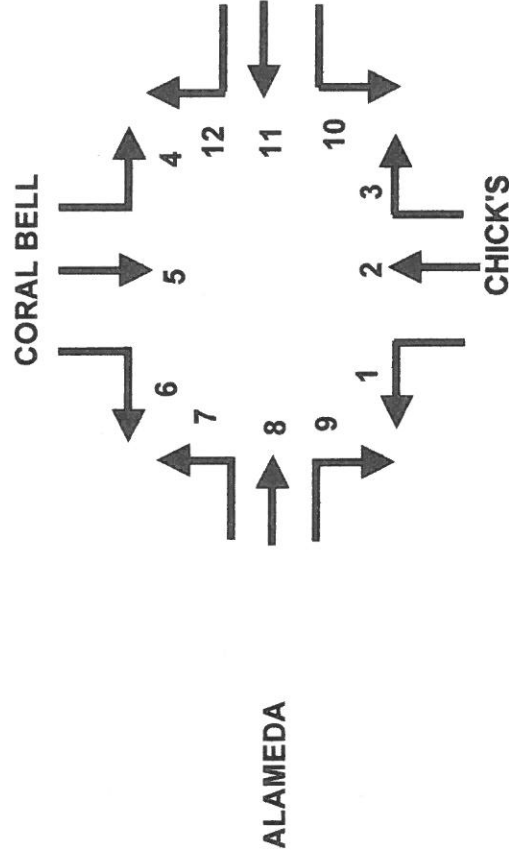
	Northbound			Southbound			Eastbound			Westbound		
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)
3:30-3:45	26	16	16	24	18	10	5	175	37	16	172	9
3:45-4:00	23	10	11	20	23	11	6	171	45	30	200	9
4:00-4:15	49	17	12	50	29	18	3	184	31	20	200	9
4:15-4:30	41	16	13	29	23	13	6	162	32	21	209	13
4:30-4:45	61	16	17	54	33	23	4	219	29	14	228	5
4:45-5:00	45	15	28	40	30	19	5	236	25	18	175	13
5:00-5:15	92	3	49	55	37	19	4	207	35	80	351	14
5:15-5:30	24	7	7	44	29	12	7	251	37	20	122	7
5:30-5:45	48	21	19	38	22	17	5	210	32	37	203	6
5:45-6:00	47	8	16	31	15	21	3	169	26	53	221	10
Pk Hr Traf.:	239	50	107	178	123	74	19	824	121	133	963	45
# of lanes:	1	2		1	2		1	2		1	2	



Peak Hour Determination

Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 7:15 a.m.

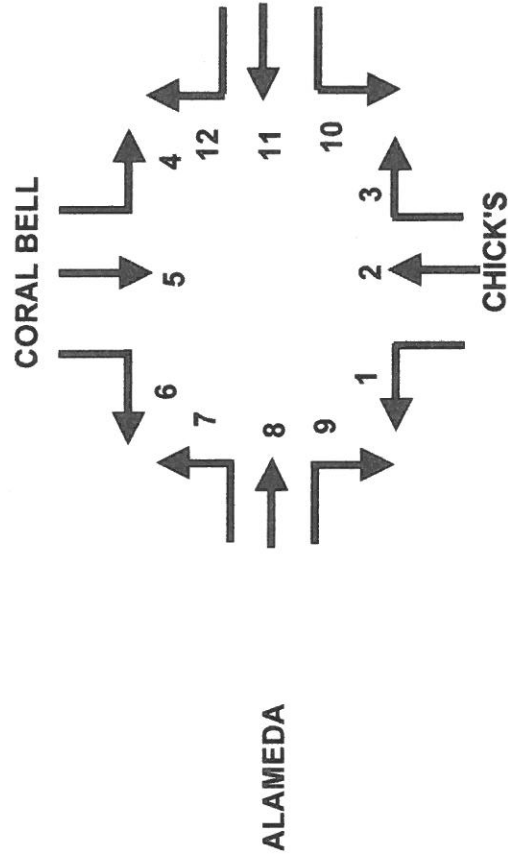
	Northbound			Southbound			Eastbound			Westbound			Total
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)	
6:30-6:45	0		0	0		1	0	185	2	0	194	0	382
6:45-7:00	0		0	0		0	0	243	0	0	152	0	395
7:00-7:15	0		0	0		0	0	226	0	0	136	0	362
7:15-7:30	0		0	0		0	0	265	0	0	209	0	474
7:30-7:45	0		0	0		0	0	274	0	0	181	0	455
7:45-8:00	0		0	0		0	0	275	0	0	196	0	471
8:00-8:15	0		0	0		0	0	291	0	0	242	0	533
8:15-8:30	0		0	0		0	0	188	0	0	171	0	359
8:30-8:45	0		0	0		0	0	145	0	1	187	0	333
8:45-9:00	0		0	1		0	0	189	1	1	176	0	368
Pk Hr Traf.:	0		0	0		0	0	1105	0	0	828	0	1933
# of lanes:	1		1	1		1	1	2		1	2		



Peak Hour Determination

Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 4:15 p.m.

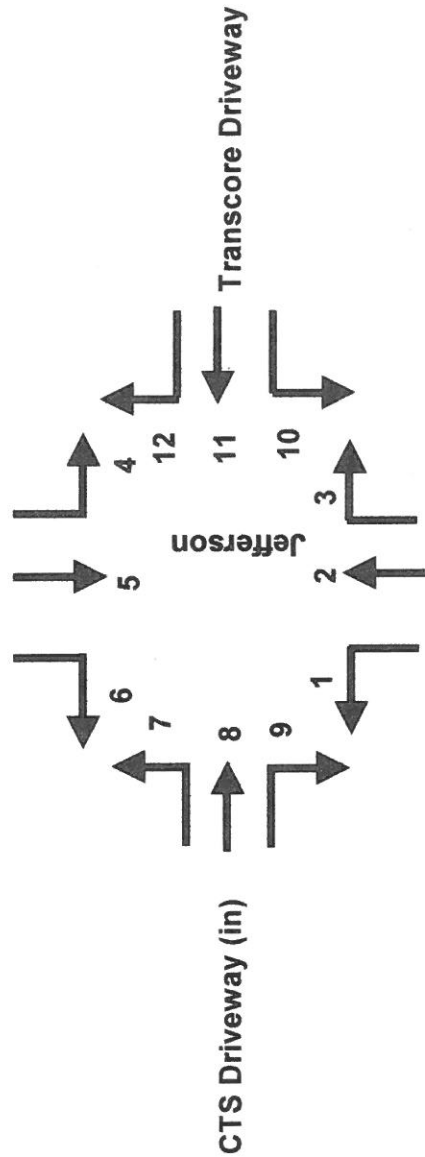
	Northbound			Southbound			Eastbound			Westbound			Total
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)	
3:30-3:45	3		1	0		0	0	211	4	3	197	0	419
3:45-4:00	1		2	0		0	0	200	2	2	239	1	447
4:00-4:15	3		1	0		2	0	245	1	0	229	1	482
4:15-4:30	3		2	0		0	0	203	1	1	241	0	451
4:30-4:45	2		1	0		0	1	288	1	1	245	0	539
4:45-5:00	1		7	0		0	1	302	1	3	204	0	519
5:00-5:15	1		6	0		1	0	311	0	0	443	0	762
5:15-5:30	2		4	0		0	0	302	0	1	149	0	458
5:30-5:45	1		1	0		1	0	266	1	0	246	0	516
5:45-6:00	2		3	1		1	0	215	1	2	284	0	509
Pk Hr Traf.:	7		16	0		1	2	1104	3	5	1133	0	2271
# of lanes:	1		1	1		1	1	2		1		2	



Peak Hour Determination

Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 7:15 a.m.

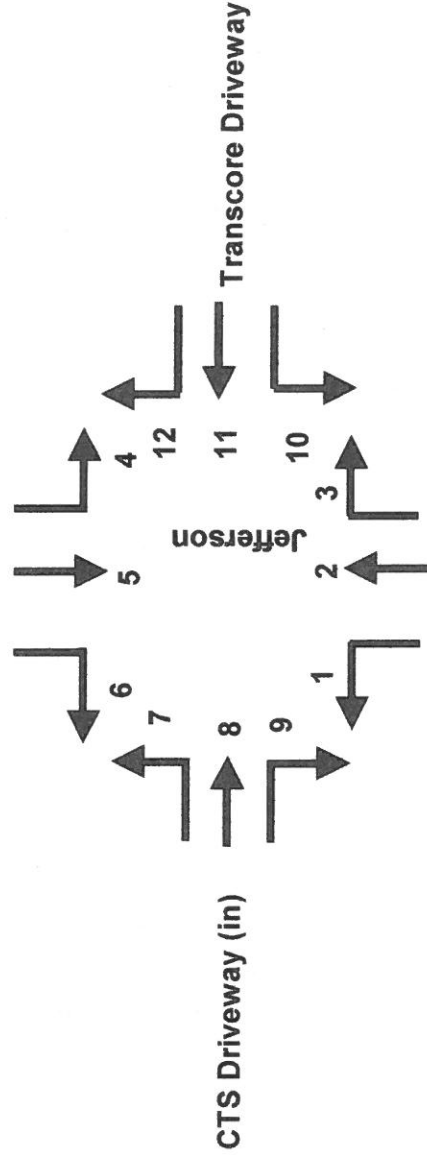
	Northbound			Southbound			Eastbound			Westbound			Total
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)	
6:30-6:45	1	53	0	0	37	8				0	0	0	99
6:45-7:00	3	78	0	0	51	0				0	0	0	132
7:00-7:15	4	55	0	0	60	2				0	0	0	121
7:15-7:30	4	70	0	0	63	4				0	0	0	141
7:30-7:45	2	81	0	1	76	1				0	0	0	161
7:45-8:00	0	74	0	0	74	1				0	0	0	149
8:00-8:15	3	67	0	1	61	2				0	0	0	134
8:15-8:30	3	50	0	2	47	0				0	0	1	103
8:30-8:45	0	60	2	1	45	2				0	0	0	110
8:45-9:00	1	66	0	2	39	0				0	0	0	108
Pk Hr Traf.:	9	292	0	2	274	8				0	0	0	585
# of lanes:	1	2		1	2					1		1	



Peak Hour Determination

Date of Traffic Count: Wednesday, February 7, 2001 Peak Hour: 4:15 p.m.

	Northbound			Southbound			Eastbound			Westbound			Total
	Left (1)	Thru (2)	Rt (3)	Left (4)	Thru (5)	Rt (6)	Left (7)	Thru (8)	Rt (9)	Left (10)	Thru (11)	Rt (12)	
3:30-3:45	0	58	0	1	61	2				1	0	1	124
3:45-4:00	0	44	0	2	74	1				0	0	0	121
4:00-4:15	1	78	1	0	67	2				0	0	1	150
4:15-4:30	0	70	0	1	75	0				0	0	5	151
4:30-4:45	0	87	0	0	76	0				0	0	0	163
4:45-5:00	1	88	1	0	73	0				0	0	1	164
5:00-5:15	0	144	0	0	152	0				0	0	1	297
5:15-5:30	0	69	0	1	72	0				0	0	1	143
5:30-5:45	0	88	0	0	60	0				0	0	0	148
5:45-6:00	0	71	0	0	51	0				0	0	0	122
Pk Hr Traf.:	1	389	1	1	376	0				0	0	7	775
# of lanes:	1	2		1	2					1		1	



Project: Tract F-1-A at Jefferson and Alameda

ITE Code/ Land Development	ITE Trip Generation Basis ¹	A.M. Peak Hour Traffic			P.M. Peak Hour Traffic			Notes		
		Entering		Exiting	Entering		Exiting			
		%	No.		%	No.				
710 General Office Building	46.473 m.s.f.	88%	89	12%	12	17%	22	83%	109	2,3

Notes:

1. Institute of Transportation Engineers (ITE) book: Trip Generation, 6th Edition.
2. M.s.f. = thousand square feet, the ITE basis of trip generation for this use. 46,473 s.f. is the total gross building area.
3. A.M. peak hour best fitted curve equation: $\ln(T) = 0.797 \ln(X) + 1.558$. P.M. best fitted curve equation: $T = 1.121(X) + 79.295$

Project: Tract F-1-A at Jefferson and Alameda

This spreadsheet shows how the **new** traffic was distributed to the new driveways (and exist. driveway I).

Exiting Movements A.M. Peak Hour	Inters'n I			Inters'n IV	Inters'n V	Total ⁶
	WB ¹	WB ²	WB ³	NB ⁴	NB ⁵	
	L	T	R	R	R	
New Traffic	1	0	6	0	5	12

Exiting Movements P.M. Peak Hour	Inters'n I			Inters'n IV	Inters'n V	Total ⁶
	WB ¹	WB ²	WB ³	NB ⁴	NB ⁵	
	L	T	R	R	R	
New Traffic	15	0	51	0	43	109

Notes:

1. WB L traffic will come from intersection I, SB T.
2. There is no WB T traffic, as it goes right into a driveway for the employees at CTS Wireless.
3. WB R traffic will feed the Intersection II movements: NB L and T, and WB T and R.
4. There are no exiting movements at Intersection IV. Assume they all use intersection I (worst case).
5. NB R feeds these intersection III movements: Intersection III, all EB movements.
6. There are no other exiting movements at Driveway V.

Project: Tract F-1-A at Jefferson and Alameda

This spreadsheet shows how the new traffic was distributed to the new driveways (and exist. driveway I).

Incoming Movements A.M. Peak Hour	Inters'n I			Inters'n IV	Inters'n V		Total ⁶
	SB ¹	NB ²	NB ³	NB ²	EB ⁴	WB ⁵	
	L	T	R	R	R	L	
New Traffic	8	11	0	11	38	32	100

Incoming Movements P.M. Peak Hour	Inters'n I			Inters'n IV	Inters'n V		Total ⁶
	SB ¹	NB ²	NB ³	NB ²	EB ⁴	WB ⁵	
	L	T	R	R	R	L	
New Traffic	2	3	0	3	9	8	25

Notes:

1. SB L traffic will come from intersection II, SB T, and EB R.
2. NB T traffic will come from intersection I, NB T, and it will all go up and turn right into Intersection IV.
3. Assume that most NB Right turns into the site will not be at intersection I, because intersection IV will be more direct.
4. The source of this movement will be new trips from Intersection II: EB T, and SB L.
5. WB L traffic will come from Intersection III, WB T, NB L, and SB R.
6. The total seems high, but only because the NB T at Intersection I gets counted twice--the second time is when they actually make the NB R at Intersection IV.

Project: Tract F-1-A at Jefferson and Alameda

Outgoing Movements ¹ A.M. Peak Hour	Inters'n I				Inters'n II				Inters'n III				Total
	SB	SB	SB	SB	NB	NB	WB	WB	EB	EB	EB	EB	
	R	T	L	R	L	T	T	R	L	T	L	R	
Existing Traffic (Feb. 2001)	8	274	2	104	101	617	133	6%	0	1105	0	2344	
Existing Traffic (% of total)	0%	12%	0%	4%	4%	27%	6%		0%	47%	0%	100%	
Horizon Year (Feb. 2002)--No Build													
Growth thru Feb. 2002 (11%)	1	30	0	11	11	68	15		0	122	0	258	
Total--No Build	9	304	2	115	112	685	148		0	1227	0	2602	
Horizon Year (Feb. 2002)--Build													
Exiting Site Traffic ^{2,3,4}	0	1	0	1	1	3	1		0	5	0	12	
Total--Build	9	305	2	116	113	688	149		0	1232	0	2614	

Outgoing Movements ¹ P.M. Peak Hour	Inters'n I				Inters'n II				Inters'n III				Total
	SB		SB		NB		WB		EB		EB		
	R	T	L	R	L	T	L	T	L	T	L	R	
Existing Traffic (Feb. 2001)	0	376	1	239	50	963	45	3	2	1104	3	2783	
Existing Traffic (% of total)	0%	14%	0%	9%	2%	34%	1%	0%	40%	0%	100%		
Horizon Year (Feb. 2002)--No Build													
Growth thru Feb. 2002 (11%)	0	41	0	26	6	106	5	0	121	0	306		
Total--No Build	0	417	1	265	56	1069	50	2	1225	3	3089		
Horizon Year (Feb. 2002)--Build													
Exiting Site Traffic ^{2,3,4}	0	15	0	9	2	38	2	0	43	0	109		
Total--Build	0	432	1	274	58	1107	52	2	1268	3	3198		

Notes:

1. The outgoing movements are the ones that are "exiting" from the site node. Basically, it is the traffic leaving the site, traveling east and west on Alameda, and leaving to travel north and south on Jefferson.
2. The new traffic exiting the site has been distributed here proportional to the percentage of traffic leaving the site node.
3. It has been conservatively assumed that all the new traffic exiting the site will not be drawn from the existing traffic stream, but is new traffic that will be **added** to the traffic stream.
4. This traffic will be **added** to the existing turning movements.

A-15

Outgoing

6/3/2003

Project: Tract F-1-A at Jefferson and Alameda

Incoming Movements ¹ A.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III			Total
	NB	EB	WB	EB	SB	SB	NB	WB	SB	
	T	L	R	T	R	L	L	T	R	
Existing Traffic (Feb. 2001)	292	0	0	955	153	53	63	0	828	0
Existing Traffic (% of total)	12%	0%	0%	41%	7%	2%	3%	0%	35%	0%
Horizon Year (Feb. 2002)--No Build										
Growth thru Feb. 2002 (11%)	32	0	0	105	17	6	7	0	91	0
Total--No Build	324	0	0	1060	170	59	70	0	919	0
Horizon Year (Feb. 2002)--Build										
Incoming Site Traffic ^{2,3,4}	11	0	0	36	6	2	2	0	32	0
Total--Build	335	0	0	1096	176	61	72	0	951	0

Incoming Movements ¹ P.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III			Total
	NB	EB	WB	EB	SB	SB	NB	WB	SB	
	T	L	R	T	R	L	L	T	R	
Existing Traffic (Feb. 2001)	389	0	7	824	121	123	178	7	1133	1
Existing Traffic (% of total)	14%	0%	0%	30%	4%	4%	7%	0%	41%	0%
Horizon Year (Feb. 2002)--No Build										
Growth thru Feb. 2002 (11%)	43	0	1	91	13	14	20	1	125	0
Total--No Build	432	0	8	915	134	137	198	8	1258	1
Horizon Year (Feb. 2002)--Build										
Incoming Site Traffic ^{2,3,4}	3	0	0	7	1	1	2	0	8	0
Total--Build	435	0	8	922	135	138	200	8	1266	1

Notes:

1. The incoming movements are the ones that are "incoming" to the site node. Basically, it is the traffic coming in from the east and west on Alameda, and from the north and south on Jefferson.
2. The new traffic coming into the site has been distributed here proportional to the percentage of traffic coming in to the site node.
3. It has been conservatively assumed that all the new traffic coming into the site will not be drawn from the existing traffic stream, but is new traffic that will be **added** to the traffic stream.
4. This traffic will be **added** to the existing turning movements.

A-16

Project: Tract F-1-A at Jefferson and Alameda

Existing Movements ¹ A.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III		
	WB	WB	WB	NB	NB	NB	EB	EB	EB
	R	T	L	L	T	R	L	T	R
Existing Traffic (Feb. 2001)	0	0	0	104	101	87	0	1105	0
Existing % at intersection				35%	35%	30%			
Horizon Year (Feb. 2002)--No Build									
Growth thru Feb. 2002 (11%)	0	0	0	11	11	10	0	122	0
Total--No Build	0	0	0	115	112	97	0	1227	0
Horizon Year (Feb. 2002)--Build									
Existing Site Traffic	6	0	1	2	2	2	0	7	0
Total--Build	6	0	1	117	114	99	0	1233	0

Existing Movements ¹ P.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III		
	WB	WB	WB	NB	NB	NB	EB	EB	EB
	R	T	L	L	T	R	L	T	R
Existing Traffic (Feb. 2001)	7	0	0	239	50	107	2	1104	3
Existing % at intersection				60%	13%	27%			
Horizon Year (Feb. 2002)--No Build									
Growth thru Feb. 2002 (11%)	1	0	0	26	6	12	0	121	0
Total--No Build	8	0	0	265	56	119	2	1225	3
Horizon Year (Feb. 2002)--Build									
Existing Site Traffic	51	0	15	31	6	14	0	57	0
Total--Build	59	0	15	296	62	133	2	1282	3

Notes:

1. This table is computing the total traffic for the revised movements at the intersections, under "build" conditions.

A-17

ExitingTotal

6/3/2003

Project: Tract F-1-A at Jefferson and Alameda

Entering Movements ¹ A.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III		
	NB	SB	NB	EB	SB	SB	NB	WB	SB
	T ³	L	R ²	T	R	T	L	T	R
Existing Traffic (Feb. 2001)	292	2	0	955	153	53	63	0	828
Horizon Year (Feb. 2002)--No Build									
Growth thru Feb. 2002 (11%)	32	0	0	105	17	6	7	0	91
Total--No Build	324	2	0	1060	170	59	70	0	919
Horizon Year (Feb. 2002)--Build									
Incoming Site Traffic	11	8	0	36	6	2	2	0	32
Total--Build	335	10	0	1096	176	61	72	0	951

Entering Movements ¹ P.M. Peak Hour	Inters'n I			Inters'n II			Inters'n III		
	NB	SB	NB	EB	SB	SB	NB	WB	SB
	T ³	L	R ²	T	R	T	L	T	R
Existing Traffic (Feb. 2001)	389	1	1	824	121	123	178	7	1133
Horizon Year (Feb. 2002)--No Build									
Growth thru Feb. 2002 (11%)	43	0	0	91	13	14	20	1	125
Total--No Build	432	1	1	915	134	137	198	8	1258
Horizon Year (Feb. 2002)--Build									
Incoming Site Traffic	3	2	0	7	1	1	2	0	8
Total--Build	435	3	1	922	135	138	200	8	1266

Notes:

1. This table is computing the total traffic for the revised movements at the intersections, under "build" conditions.
2. It has been assumed that all northbound right traffic on Jefferson entering the site will enter at the new intersection no. IV.
3. The northbound right traffic at intersection IV is a northbound through at intersection I.

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	Joe P. Kelley
Agency/Co.	JC Engineering
Date Performed	6/3/2003
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Driveway I
Jurisdiction	Albq/NMSHTD
Analysis Year	2001 (exist)
Project ID	Otono Plaza

East/West Street: Driveway I

North/South Street: Jefferson

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	292	0	2	274	8
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	9	292	0	2	274	8
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal		0			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	1	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	0	1	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	1	0
Configuration	L		R		LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		R		LTR	
v (vph)	9	2	0		0		1	
C (m) (vph)		1281			752			
v/c		0.00			0.00			
95% queue length		0.00			0.00			
Control Delay		7.8			9.8			
LOS		A			A			
Approach Delay	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information				
Analyst	Joe P. Kelley			Intersection	Driveway I			
Agency/Co.	JC Engineering			Jurisdiction	Albq/NMSHTD			
Date Performed	6/3/2003			Analysis Year	2001 (exist)			
Analysis Time Period	P.M. Peak Hour			Project ID	Otono Plaza			
East/West Street: Driveway I				North/South Street: Jefferson				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	1	389	1	1	376	0		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR	1	389	1	1	376	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			1			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	0	1	0		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR	0	0	0	0	1	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	1	0	1	0		
Configuration	L		R		LTR			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		R		LTR	
v (vph)	1	1	0		0		1	
C (m) (vph)		1180			664			
v/c		0.00			0.00			
95% queue length		0.00			0.00			
Control Delay		8.1			10.4			
LOS		A			B			
Approach Delay	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	Joe P. Kelley		Intersection	Driveway I
Agency/Co.	JC Engineering		Jurisdiction	Albq/NMSHTD
Date Performed	6/3/2003		Analysis Year	2003 (dev)
Analysis Time Period	A.M. Peak Hour		Project ID	Otono Plaza

East/West Street: Driveway I	North/South Street: Jefferson
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	335	0	10	300	9
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	9	335	0	10	300	9
Percent Heavy Vehicles	0	—	—	0	—	—
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal		0			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	6	0	1	0	1	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	6	0	1	0	1	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	1	0
Configuration	L		R		LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		R		LTR	
v (vph)	9	10	6		1		1	
C (m) (vph)		1236			712			
v/c		0.01			0.00			
95% queue length		0.02			0.00			
Control Delay		7.9			10.1			
LOS		A			B			
Approach Delay	—	—						
Approach LOS	—	—						

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	Joe P. Kelley
Agency/Co.	JC Engineering
Date Performed	6/3/2003
Analysis Time Period	P.M. Peak Hour

Site Information

Intersection	Driveway I
Jurisdiction	Albq/NMSHTD
Analysis Year	2003 (dev)
Project ID	Otono Plaza

East/West Street: Driveway I

North/South Street: Jefferson

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	435	1	3	416	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	1	435	1	3	416	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal		0			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	15	0	59	0	1	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	15	0	59	0	1	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	1	0
Configuration	L		R		LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		R		LTR	
v (vph)	1	3	15		59		1	
C (m) (vph)		1134			625			
v/c		0.00			0.09			
95% queue length		0.01			0.31			
Control Delay		8.2			11.4			
LOS		A			B			
Approach Delay	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	Joe P. Kelley, P.E.
Agency/Co.	JC Engineering
Date Performed	6/3/2003
Analysis Time Period	A.M. Peak Hour

Site Information

Intersection	Driveway III
Jurisdiction	Albq/NMSHTD
Analysis Year	2001 (exist)
Project ID	Otono Plaza

East/West Street: Alameda

North/South Street: Coral Bell Lane

Intersection Orientation: East-West

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1105	0	0	828	0
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	1105	0	0	828	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal		1			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	0	0	1
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	0	0	1
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	1	0
Configuration	L		R		LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		R		LTR	
v (vph)	0	0	0		0		1	
C (m) (vph)	812							
v/c	0.00							
95% queue length	0.00							
Control Delay	9.4							
LOS	A							
Approach Delay	--	--						
Approach LOS	--	--						

INPUT WORKSHEET

General Information

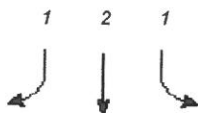
Analyst Joe P. Kelley, P.E.
 Agency or Co. JC Engineering
 Date Performed 6/3/2003
 Time Period A.M. Peak Hour

Site Information

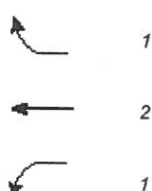
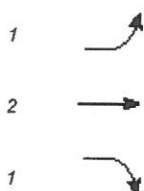
Intersection Jefferson/Alameda
 Area Type All other areas
 Jurisdiction Albq/NMSHTD
 Analysis Year 2003 (dev)

Intersection Geometry

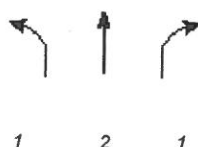
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Grade = 0



Grade = 0



Grade = 0

Volume and Timing Input

			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Volume (vph)			133	1096	176	82	688	149	117	114	99	72	61	28
% Heavy veh			0	0	0	0	0	0	0	0	0	0	0	0
PHF			0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)			P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type			3	3	3	3	3	3	3	3	3	3	3	3
Ped volume			0			0			0			0		
Bicycle volume														
Parking (Y or N)			N		N	N		N	N		N	N		N
Parking/hr														
Bus stops/hr			0	0	0	0	0	0	0	0	0	0	0	0
Ped timing			0.0			0.0			0.0			0.0		
	Excl. Left	EW Perm	03		04		Excl. Left	NS Perm		07		08		
Timing	G = 10.0	G = 46.0	G =		G =		G = 16.0	G = 28.0		G =		G =		
	Y = 4.0	Y = 4.0	Y =		Y =		Y = 4.0	Y = 4.0		Y =		Y =		
Duration of Analysis (hrs) = 0.25									Cycle Length C = 120.0					

INPUT WORKSHEET

General Information

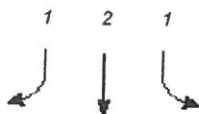
Analyst Joe P. Kelley, P.E.
 Agency or Co. JC Engineering
 Date Performed 6/3/2003
 Time Period P.M. Peak Hour

Site Information

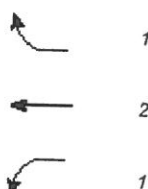
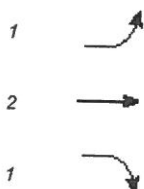
Intersection Jefferson/Alameda
 Area Type All other areas
 Jurisdiction Albq/NMSHTD
 Analysis Year 2003 (dev)

Intersection Geometry

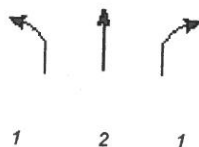
Grade = 0



Grade = 0



Grade = 0



Grade = 0

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Volume (vph)	21	922	135	146	1069	52	296	62	133	200	136	82
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	3	3	3	3	3	3	3	3	3	3	3	3
Ped volume	0			0			0			0		
Bicycle volume												
Parking (Y or N)	N		N	N		N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Ped timing	0.0			0.0			0.0			0.0		
	Excl. Left	EW Perm	03	04	Excl. Left	NS Perm	07	08				
Timing	G = 10.0	G = 42.0	G =	G =	G = 16.0	G = 32.0	G =	G =				
	Y = 4.0	Y = 4.0	Y =	Y =	Y = 4.0	Y = 4.0	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					