TABLE A
TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2007 PM PEAK HOUR
GRAND TERRACE TOWNE CENTER, GRAND TERRACE

5. Intersection: Barton Road at Vivienda Avenue

Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBL	5	0	1.5	0	0	2.0	0	0	3.0	0	5
SBT	1	0	1.5	0	0	2.0	0	0	3.0	0	1
SBR	19	0	1.5	0	0	2.0	0	0	3.0	0	19
EBL	49	2	1.5	3	0	2.0	0	1	3.0	3	55
EBT	855	4	1.5	6	7	2.0	14	0	3.0	0	875
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	532	6	1.5	9	6	2.0	12	1	3.0	3	556
WBR	15	0	1.5	0	0	2.0	0	0	3.0	0	15

6. Intersection: Barton Road at Canal Street

Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	1	0	1.5	0	0	2.0	0	0	3.0	0	1
NBT	1	0	1.5	0	0	2.0	0	0	3.0	0	1
NBR	3	0	1.5	0	0	2.0	0	0	3.0	0	3
SBL	65	0	1.5	0	0	2.0	0	0	3.0	0	65
SBT	4	0	1.5	0	0	2.0	0	0	3.0	0	4
SBR	15	1	1.5	1.5	0	2.0	0	0	3.0	0	17
EBL	28	0	1.5	0	1	2.0	2	0	3.0	0	30
EBT	796	4	1.5	6	1	2.0	2	0	3.0	0	804
EBR	2	0	1.5	0	0	2.0	0	0	3.0	0	2
WBL	1	0	1.5	0	0	2.0	0	0	3.0	0	1
WBT	504	7	1.5	10.5	4	2.0	8	0	3.0	0	523
WBR	39	0	1.5	0	0	2.0	0	0	3.0	0	39

TABLE A
TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2007 AM PEAK HOUR
GRAND TERRACE TOWNE CENTER, GRAND TERRACE

5. Intersection: Barton Road at Vivienda Avenue

Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBL	2	0	1.5	0	3	2.0	6	0	3.0	0	8
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	35	0	1.5	0	9	2.0	18	0	3.0	0	53
EBL	39	0	1.5	0	6	2.0	12	1	3.0	3	54
EBT	496	13	1.5	19.5	9	2.0	18	5	3.0	15	549
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	595	11	1.5	16.5	5	2.0	10	2	3.0	6	628
WBR	17	0	1.5	0	2	2.0	4	0	3.0	0	21

6. Intersection: Barton Road at Canal Street

Movements	Vehicles	Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			Total
		Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	0	1	1.5	1.5	1	2.0	2	0	3.0	0	4
NBR	0	1	1.5	1.5	1	2.0	2	0	3.0	0	4
SBL	35	2	1.5	3	2	2.0	4	1	3.0	3	45
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	47	1	1.5	1.5	1	2.0	2	3	3.0	9	60
EBL	22	3	1.5	4.5	1	2.0	2	0	3.0	0	29
EBT	444	13	1.5	19.5	5	2.0	10	5	3.0	15	489
EBR	2	2	1.5	3	1	2.0	2	0	3.0	0	7
WBL	2	0	1.5	0	0	2.0	0	0	3.0	0	2
WBT	515	8	1.5	12	3	2.0	6	1	3.0	3	536
WBR	21	0	1.5	0	1	2.0	2	0	3.0	0	23

HCM LOS REPORT

General Information		Site Information	
Analyst:	LTT	Intersection:	6am2007-ex
Agency or Co.:	LLG Engineers	Area Type:	All other areas
Date Performed:	5/29/2007	Jurisdiction:	Grand Terrace
Time Period:	AM Peak Hour	Analysis Year:	2007
Project ID:	Existing Traffic Conditions	N/S Street:	Canal Street/Access Road
		E/W Street:	Barton Road

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	29	489	7	2	536	23	0	4	4	45	0	60
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	Thru & RT	03	04	NS Perm	06	07	08
Timing	G = 18.0	G = 62.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 3	Y = 4	Y =	Y =	Y = 3	Y =	Y =	Y =
	AR = 1	AR = 1	AR = 0	AR = 0	AR = 1	AR = 0	AR = 0	AR = 0
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	31	522		2	588		0	8		47	63	
Lane Group Capacity	255	1860		255	1860		382	405		382	405	
Satflow Rate	1700	3600		1700	3600		1700	1800		1700	1800	
v/c Ratio	0.12	0.28		0.01	0.32		0.00	0.02		0.12	0.16	
Green Ratio	0.15	0.52		0.15	0.52		0.22	0.22		0.22	0.22	
Uniform Delay d_1	44.2	16.4		43.4	16.8		36.0	36.2		37.1	37.3	
Delay Factor k	0.11	0.11		0.11	0.11		0.11	0.11		0.11	0.11	
Incremental Delay d_2	0.2	0.1		0.0	0.1		0.0	0.0		0.1	0.2	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay	44.4	16.5		43.4	16.9		36.0	36.2		37.2	37.5	
Lane Group LOS	D	B		D	B		D	D		D	D	
Approach Delay	18.0			16.9			36.2			37.4		
Approach LOS	B			B			D			D		
Intersection Delay	19.3			X_c = 0.24			Intersection LOS			B		

Percentile Back of Queue (95th percentile)

fB%	2.1	1.9		2.1	1.9		2.1	2.1		2.1	2.0	
Back of Queue	2.0	10.2		0.1	11.6		0.0	0.5		2.7	3.6	

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HCM LOS REPORT

General Information		Site Information	
Analyst:	LTT	Intersection:	6pm2007-ex
Agency or Co.:	LLG Engineers	Area Type:	All other areas
Date Performed:	5/29/2007	Jurisdiction:	Grand Terrace
Time Period:	PM Peak Hour	Analysis Year:	2007
Project ID:	Existing Traffic Conditions	N/S Street:	Canal Street/Access Road
		E/W Street:	Barton Road

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	30	804	2	1	523	39	1	1	3	65	4	17
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0		0	0		0	0		0	0	
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	Excl. Left	Thru & RT	03	04	NS Perm	06	07	08
Timing	G = 18.0	G = 62.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 3	Y = 4	Y =	Y =	Y = 3	Y =	Y =	Y =
	AR = 1	AR = 1	AR = 0	AR = 0	AR = 1	AR = 0	AR = 0	AR = 0
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	32	848		1	592		1	4		68	22	
Lane Group Capacity	255	1860		255	1860		382	405		382	405	
Satflow Rate	1700	3600		1700	3600		1700	1800		1700	1800	
v/c Ratio	0.13	0.46		0.00	0.32		0.00	0.01		0.18	0.05	
Green Ratio	0.15	0.52		0.15	0.52		0.22	0.22		0.22	0.22	
Uniform Delay d_1	44.2	18.3		43.4	16.8		36.1	36.1		37.5	36.5	
Delay Factor k	0.11	0.11		0.11	0.11		0.11	0.11		0.11	0.11	
Incremental Delay d_2	0.2	0.2		0.0	0.1		0.0	0.0		0.2	0.1	
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay	44.4	18.5		43.4	16.9		36.1	36.1		37.8	36.5	
Lane Group LOS	D	B		D	B		D	D		D	D	
Approach Delay	19.5			16.9			36.1			37.5		
Approach LOS	B			B			D			D		
Intersection Delay	19.6			X_c = 0.33			Intersection LOS			B		

Percentile Back of Queue (95th percentile)

fB%	2.1	1.9		2.1	1.9		2.1	2.1		2.0	2.1	
Back of Queue	2.0	17.8		0.1	11.7		0.1	0.2		3.9	1.3	

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