REPORT
ON
AIR QUALITY ANALYSIS
FOR
LA 44 SIGNAL IMPROVEMENTS



CITY OF
GONZALES
Louisiana

PREPARED BY

CAPITAL REGION PLANNING COMMISSION

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Air Quality Analysis of Individual Intersection Improvements on LA 44 corridor Gonzales, Louisiana.

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1. Introduction

This report addresses the air quality analysis of a signal synchronization project at each individual intersection on the corridor of La 44 in Gonzales. The corridor under study and the intersection layouts are shown on the two following maps. The air quality analysis of this signal synchronization project is a requirement for the use of **Congestion Mitigation for Air Quality (CMAQ)** funds.

The major sources of procedures used for the analysis of both individual intersections and the corridor improvements were based on **SYNCHRO 5 traffic analysis software.** The other primary source of procedures and techniques used in this analysis was the **EPA Mobile Source Emission Factor Model (MOBILE6)**.

The above mentioned signal synchronization project is analyzed for the reduction in emissions that would result from proposed improvements on the corridor. Peak period turning movements by fifteen (15) minute intervals, and by lane, were collected by CRPC staff. DOTD Traffic Engineering Section provided the Traffic Signal Information (TSI) for all intersections on the corridor.

2. Method of Analysis

The procedures that were used in the analysis are explained in detail below.

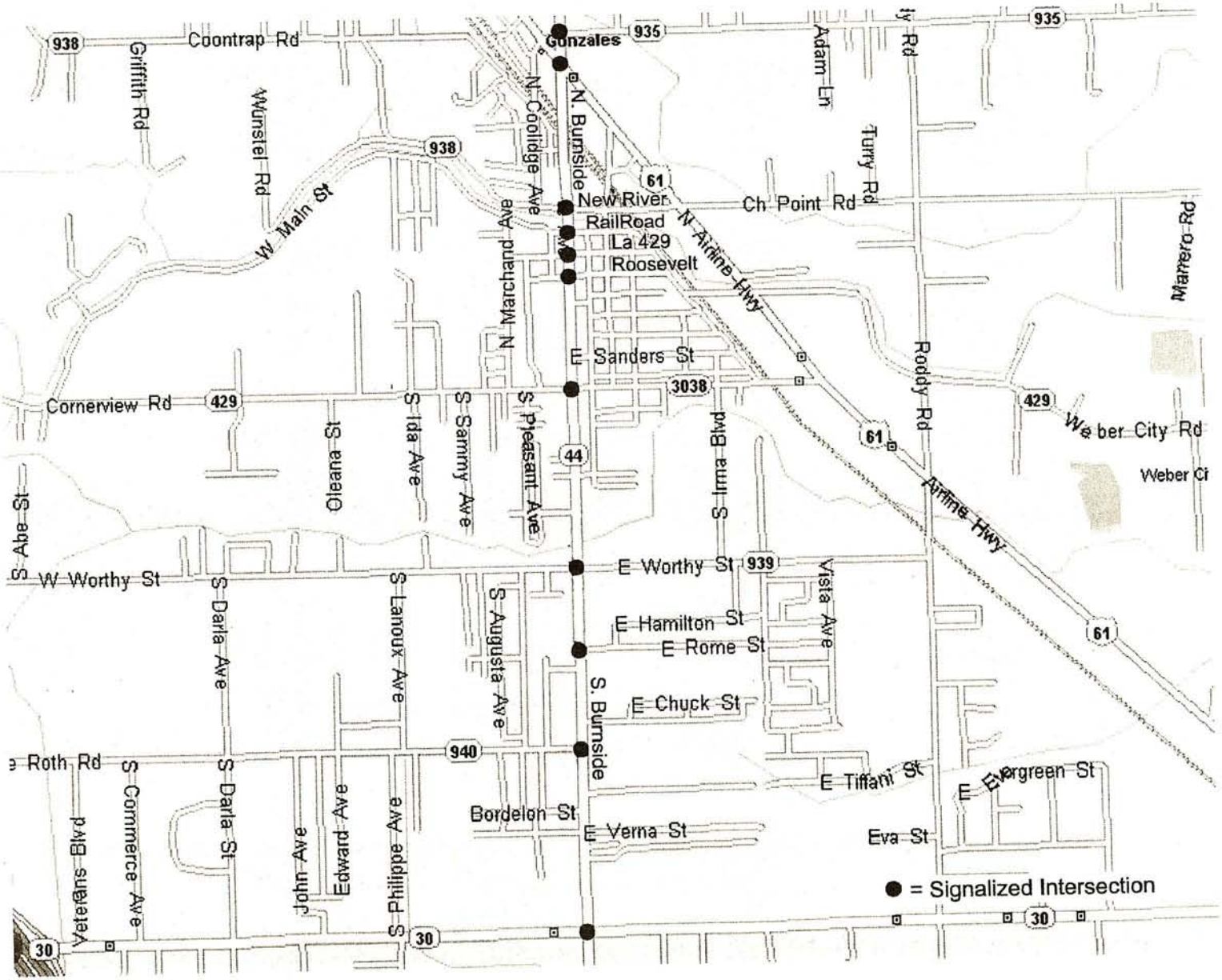
1. The corridor of LA 44 consisted of 11 signals to be analyzed. Each signalized intersection of the corridor was optimized for its cycle length and splits using SYNCHRO 5 software.

2. The existence of interconnection among some signals on the corridor required the signals to be divided into 3 systems. The signals in two systems have interconnection among them, while one system is isolated.

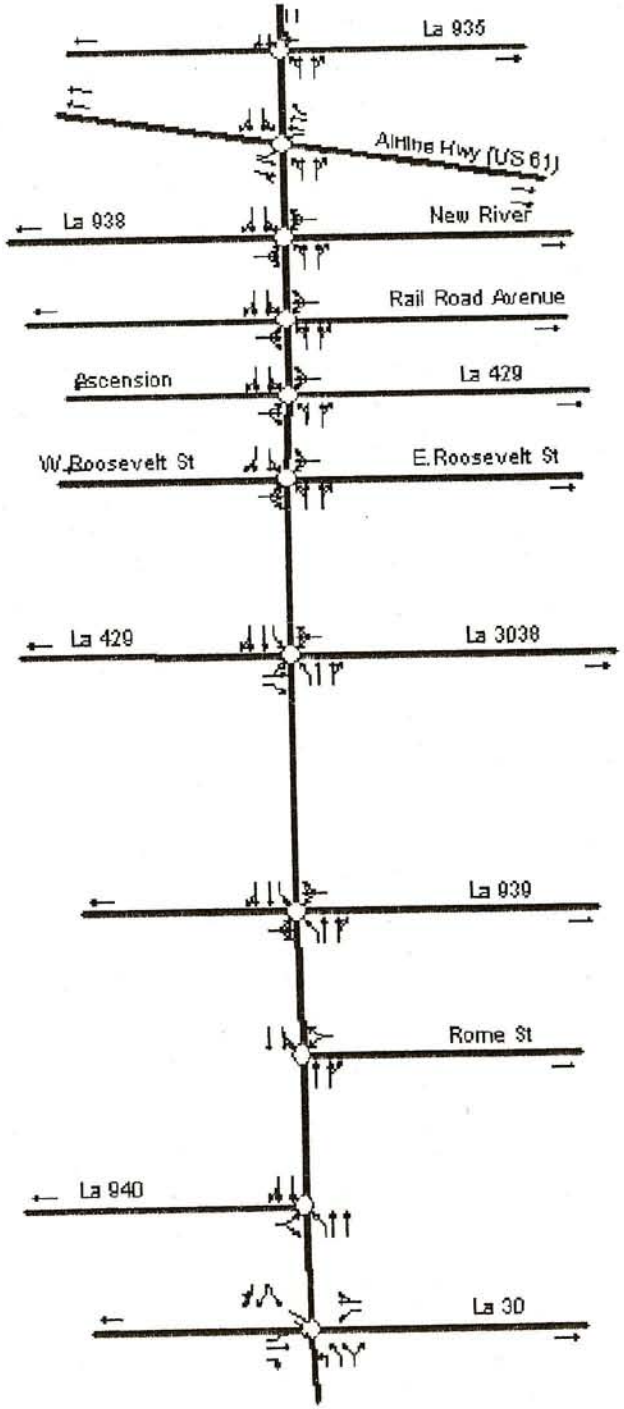
3. The signalized intersections in each system are described as follows,

System 1	LA 30 @ LA 44
System 2	LA 60 @ LA 44

Vicinity Map – Gonzales, LA



Study Corridor – LA 44
Gonzales, LA



System 3

LA 953 @ LA 44
LA 44 @ LA 940 (T – Intersection)
LA 44 @ Rome Street (T – Intersection)
LA 44 @ LA 939
LA 44 @ LA 3038
LA 44 @ Roosevelt Street
LA 44 @ Ascension Street
LA 44 @ Rail Road Street
LA 44 @ LA 938.

4. System 2 and System 3 were analyzed as a network of intersections whereas the intersection of System 1 was analyzed as an individual intersection. All systems were analyzed using the SYNCHRO 5 software for existing conditions. The most useful information from these computer runs was average delay in seconds per vehicle (sec/veh), and level of service (LOS). This information was generated by intersection approach and also for each system.

5. Based on the output data from paragraph 4 above, improvements were performed at every intersection of the corridor.

6. Improvements were performed to bring the LOS of E and F, to acceptable levels of service such as A, B and C. These calculations were based on the most recent traffic counts and traffic signal information for these intersections.

7. The SYCNRHO output gave an average delay in seconds per vehicle for each intersection in each system. Multiplying the intersection average delay by the hourly volume gave the total delay in vehicle-hours per hour. The calculations performed are as shown below.

Total Delay (in veh-hrs per peak hour) = Peak Hour Volume * Average Delay in sec/veh/3600.

8. After calculating the delay, EPA's Mobile Source Emission Factor Model (MOBILE6) was used to obtain VOC and NOx emission factors for the different functional classifications. The MOBILE6 model was run using the 2.5 mph speed, which gives idling emission factors for intersection studies. The VOC and NOx emission factors were generated in units of gm/mile. These units were multiplied by 2.5 to convert to gm/hr. These values were then converted to kg/hr and multiplied by the total delay in veh-hrs to obtain total emissions in U.S.tons per year.

For example, using MOBILE6 procedures, it is convenient to generate the following:

Total emissions in Kg/hr = VOC emission factor * 2.5 * delay in veh-hrs/1000

The analysis showed that the proposed improvements would reduce total traffic delay through the intersections during the morning peak and the evening peak period. Actually, the improvements will enhance traffic flow and reduce emissions by significant amounts during off-peak times as well, but the greatest benefits were observed to be during the peak hours.

3. Description of Intersection Conditions and Improvements

The following material presents a summary description of each intersection. In particular, it deals with:

- The "before" and "after" geometry of each intersection,
- A description of the performance measures at each intersection,
- The improvements proposed at each intersection,
- The changes in performance measures for the corridor resulting from the proposed improvements, and
- The change in air quality emissions resulting from the improvements.

Geometry of Each Intersection on LA 44

The improvements proposed below come under alternative 3, which incorporates both alternatives 1 and 2.

1. LA 44 @ LA 30

Existing:

NB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.

SB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.

EB - Three lanes; one exclusive left, one exclusive through lane and one exclusive right lane.

WB - Two lanes; one exclusive left and one right turn lane shared with a through lane.

Improvements:

New Equipment

New Right turn pocket in the SB direction.

2. LA 44 @ LA 940 (T – Intersection)

Existing:

NB - Three lanes; one exclusive left, two exclusive through lanes.
SB - Two lanes; one exclusive through lane, one right turn lane shared with a through lane.
EB - One lane; Shared left and right turn lane.
WB - No Lane.

Improvements:

New Equipment

3. LA 44 @ Rome Street (T – Intersection)

Existing:

NB - Two lanes; one exclusive through lane, one right turn lane shared with a through lane.
SB - Two lanes; one exclusive through lane, one left turn lane shared with a through lane.
EB - No lane.
WB- One lane; Shared left and right turn lane.

Improvements:

New Equipment

4. LA 44 @ LA 939

Existing:

NB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.
SB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.
EB – One lane; Shared right, left and a through lane.
WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment
LA 939 - New Right Turn Pocket in the EB direction.
LA 939 - New Left Turn Pocket in the WB direction.

5. LA 44 @ LA 3038

Existing:

NB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.
SB - Three lanes; one exclusive left, one exclusive through lane, one right turn lane shared with a through lane.
EB – Two lanes; one left turn lane shared with a through lane and one exclusive right lane.
WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment
LA 3038 - New Left Turn Pocket in the WB direction.
LA 3038 - New Left Turn Pocket in the EB direction.

6. LA 44 @ Roosevelt Street

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – One lane; Shared right, left and a through lane.

WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment

7. LA 44 @ Ascension Street

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – One lane; Shared right, left and a through lane.

WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment

8. LA 44 @ Rail Road Street

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – One lane; Shared right, left and a through lane.

WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment

9. LA 44 @ LA 938

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – One lane; Shared right, left and a through lane.

WB - One lane; Shared right, left and a through lane.

Improvements:

New Equipment

10. LA 44 @ Airline Hwy (US 61)

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – Three lanes; one right turn lane shared with a through lane, one exclusive through lane and one exclusive left turn lane.

WB – Four lanes; one exclusive right, one exclusive left and two exclusive through lanes.

Improvements:

US 61 – New Right Turn Pocket in the EB direction

LA 44 – New Left Turn Pocket in the NB direction.

LA 44 – New Left Turn Pocket in the SB direction.

11. LA 44 @ LA 935

Existing:

NB- Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

SB - Two lanes; one left turn lane shared with a through lane, one right turn lane shared with a through lane.

EB – No EB lane, (one west bound one-way lane)

WB - One lane; Shared right, left and a through lane.

Improvements:

Existing Equipment to Remain

These improvements reduced the average delay across the corridor (11 intersections) from 90.0 to 78.0 Veh-Hrs/Hr. The percentage reduction in VOC and NOx emissions was **13.33**. The estimated total cost of improvements is $1,880,000.

4. Summary

The above information can be summarized as follows. During the experimentation of implementing actions to increase the performance for the corridor, changes were made to cycle lengths, phase splits, equipment replacement and adding turn lanes at different intersections.

In this analysis the total delay and emission calculations were calculated assuming the improvements will help traffic flowing through the intersection at least six hours in a day (three hours during the morning peak hours and three hours during the evening peak hours), and 260 days in a year (considering week days only).

The percent reduction in volatile organic compounds (VOC) emissions across the corridor is 13.33. The actual reduction in VOCs is **1.763 kilograms/day** or **0.507 U.S tons/year**.

The comparable emissions for NOx show a reduction of **0.785 kilograms/day** or **0.226 U.S. tons/year**.

5. Attachments

Considerable information is provided in the attachments following this narrative. The titles to these attachments are as follows.

1. Attachment A - Project Description and Intersection Analysis Emission Calculations.

2. Attachment B - Output of SYNCHRO 5 runs, for existing conditions with improvements.

3. Attachment C – MOBILE6 Input & Output Files

4. Attachment D – Traffic Count Information

ATTACHMENT A

INTERSECTION EMISSION CALCULATIONS

Corridor Name:

LA 44

P.M. Peak Period Analysis

		Avg. Delay (Veh. Hrs/P.M. Peak Hr.)			
System	**Intersection**	**Existing Conditions**	**With Improvements**	**Reduction in Delay**	**LOS**
2	US 61	34	25	9	C
2	LA 935	4	2	2	A
3	LA 940	6	8	-2	A
3	Rome St.	2	3	-1	A
3	LA 939	9	10	-1	B
3	LA 429	9	8	1	B
3	Roosevelt	1	1	0	A
3	Ascension	1	1	0	A
3	Railroad A	1	1	0	A
3	LA 938	3	3	0	A
1	LA 30	20	16	4	C
	Total	**90**	**78**	**12**	

Emission Reductions at Individual Intersections:

The following table shows the emission improvements at individual intersection, which constitute the corridor in the study. The last row represents the emission improvement for the entire corridor, which is obtained by the summation of the 9 individual intersection improvements.

System	Intersection	Daily VOC Emission Reductions (gm/Hr)	Yearly VOC Reductions (gm/Yr)	VOC reductions Metric Tons	VOC reductions US Tons	Daily NOx Emission Reductions (gm/Hr)	NOx Yearly Reductions (gm/Yr)	NOx Reductions Metric Tons	NOx Reductions US Tons
2	US 61	1322.19	343769.4	0.3437694	0.3802433	588.735	153071.1	0.1530711	0.16931194
2	LA 935	293.82	76393.2	0.0763932	0.0844985	130.83	34015.8	0.0340158	0.03762488
3	LA 940	-293.82	-76393.2	-0.0763932	-0.0844985	-130.83	-34015.8	-0.0340158	-0.0376249
3	Rome St.	-146.91	-38196.6	-0.0381966	-0.0422493	-65.415	-17007.9	-0.0170079	-0.0188124
3	LA 939	-146.91	-38196.6	-0.0381966	-0.0422493	-65.415	-17007.9	-0.0170079	-0.0188124
3	LA 429	146.91	38196.6	0.0381966	0.0422493	65.415	17007.9	0.0170079	0.01881244
3	Roosevelt	0	0	0	0	0	0	0	0
3	Ascension	0	0	0	0	0	0	0	0
3	Railroad A	0	0	0	0	0	0	0	0
3	LA 938	0	0	0	0	0	0	0	0
1	LA 30	587.64	152786.4	0.1527864	0.168997	261.66	68031.6	0.0680316	0.07524975
	Total	**1762.92**	**458359.2**	**0.4583592**	**0.5069911**	**784.98**	**204094.8**	**0.2040948**	**0.22574926**

ATTACHMENT B

SYNCHRO OUTPUT

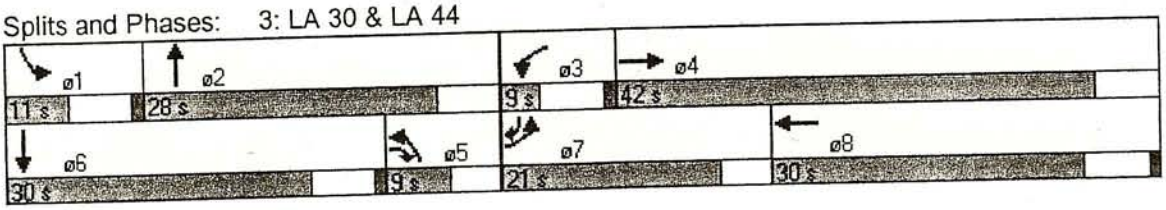
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1863	1583	1770	1811	0	1888	3666	0	1888	3775	1689
Flt Permitted	0.185			0.378			0.568			0.211		
Satd. Flow (perm)	345	1863	1583	704	1811	0	1129	3666	0	419	3775	1689
Satd. Flow (RTOR)			22		13			32				213
Volume (vph)	339	478	35	50	313	71	67	387	93	140	277	196
Lane Group Flow (vph)	368	520	38	54	417	0	73	522	0	152	301	213
Turn Type	pm+pt		pm+ov	pm+pt			pm+pt			pm+pt		pm+ov
Protected Phases	7	4	5	3	8		5	2		1	6	7
Permitted Phases	4		4	8			2			6		6
Detector Phases	7	4	5	3	8		5	2		1	6	7
Minimum Initial (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0		3.0	4.0	4.0
Minimum Split (s)	9.0	20.0	9.0	9.0	20.0		9.0	20.0		9.0	20.0	9.0
Total Split (s)	21.0	42.0	9.0	9.0	30.0	0.0	9.0	28.0	0.0	11.0	30.0	21.0
Total Split (%)	23%	47%	10%	10%	33%	0%	10%	31%	0%	12%	33%	23%
Yellow Time (s)	4.0	5.0	4.0	5.0	5.0		4.0	5.0		5.0	5.0	4.0
All-Red Time (s)	0.0	0.0	0.0	1.0	1.0		0.0	0.0		1.0	1.0	0.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Coord		None	Coord	None
Act Effct Green (s)	38.0	31.5	37.3	29.5	24.5		32.3	32.3		36.1	36.1	47.1
Actuated g/C Ratio	0.42	0.35	0.41	0.33	0.27		0.36	0.36		0.40	0.40	0.52
v/c Ratio	1.20	0.80	0.06	0.19	0.83		0.16	0.39		0.54	0.20	0.22
Uniform Delay, d1	17.4	26.4	4.6	14.9	28.7		20.6	20.9		18.8	18.9	0.0
Delay	32.7	26.3	5.0	14.0	33.3		23.4	21.8		24.7	20.0	1.2
LOS	C	C	A	B	C		C	C		C	C	A
Approach Delay		27.9			31.1			22.0			15.1	
Approach LOS		C			C			C			B	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 23.9
Intersection Capacity Utilization 79.6%

Intersection LOS: C
ICU Level of Service C

Splits and Phases: 3: LA 30 & LA 44



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1619	0	1770	3539	3465	0
Flt Permitted	0.963		0.290			
Satd. Flow (perm)	1619	0	540	3539	3465	0
Satd. Flow (RTOR)	18				37	
Volume (vph)	202	64	38	789	673	107
Lane Group Flow (vph)	290	0	41	858	848	0
Turn Type			Perm			
Protected Phases	4			2	2	
Permitted Phases			2			
Detector Phases	4		2	2	2	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.3		21.3	21.3	21.3	
Total Split (s)	30.0	0.0	60.0	60.0	60.0	0.0
Total Split (%)	33%	0%	67%	67%	67%	0%
Yellow Time (s)	4.8		4.8	4.8	4.8	
All-Red Time (s)	0.0		0.0	0.0	0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Coord	Coord	Coord	
Act Effct Green (s)	20.1		61.9	61.9	61.9	
Actuated g/C Ratio	0.22		0.69	0.69	0.69	
v/c Ratio	0.77		0.11	0.35	0.35	
Uniform Delay, d1	30.7		4.8	5.8	5.5	
Delay	30.0		6.4	6.5	1.8	
LOS	C		A	A	A	
Approach Delay	30.0			6.5	1.8	
Approach LOS	C			A	A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 7.9
Intersection Capacity Utilization 47.0%

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 6: LA 940 & LA 44

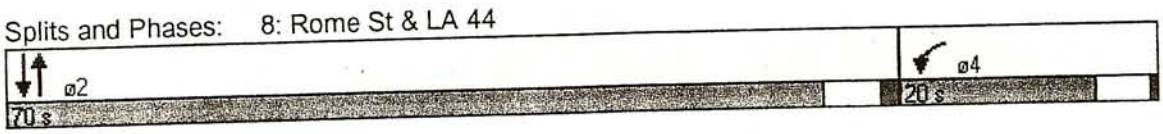
ø2	ø4
60 s	30 s

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1614	0	3490	0	0	3536
Flt Permitted	0.966					0.938
Satd. Flow (perm)	1614	0	3490	0	0	3320
Satd. Flow (RTOR)	20		32			
Volume (vph)	83	34	899	92	10	737
Lane Group Flow (vph)	127	0	1077	0	0	812
Turn Type					Perm	
Protected Phases	4		2			2
Permitted Phases					2	
Detector Phases	4		2		2	2
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	9.0		10.0		10.0	10.0
Total Split (s)	20.0	0.0	70.0	0.0	70.0	70.0
Total Split (%)	22%	0%	78%	0%	78%	78%
Yellow Time (s)	4.0		4.5		4.5	4.5
All-Red Time (s)	0.8		1.5		1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Coord		Coord	Coord
Act Effct Green (s)	11.8		70.2			70.2
Actuated g/C Ratio	0.13		0.78			0.78
v/c Ratio	0.55		0.39			0.31
Uniform Delay, d1	30.7		3.0			2.9
Delay	30.0		2.4			5.9
LOS	C		A			A
Approach Delay	30.0		2.4			5.9
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 13 (14%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 5.5 — Intersection LOS: A
Intersection Capacity Utilization 44.1% — ICU Level of Service A

Splits and Phases: 8: Rome St & LA 44



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1786	0	1770	1697	0	1770	3468	0	1770	3468	0
Flt Permitted	0.364			0.655			0.243			0.207		
Satd. Flow (perm)	678	1786	0	1220	1697	0	453	3468	0	386	3468	0
Satd. Flow (RTOR)		17			67			29			28	
Volume (vph)	125	66	25	150	69	101	19	890	138	46	634	97
Lane Group Flow (vph)	136	99	0	163	185	0	21	1117	0	50	794	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	7	4		3	8		5	2		1	6	
Minimum Initial (s)	4.0	9.0		4.0	9.0		3.0	12.0		3.0	12.0	
Minimum Split (s)	9.3	15.0		12.0	15.0		9.0	17.0		9.0	17.0	
Total Split (s)	15.0	15.0	0.0	15.0	15.0	0.0	9.0	51.0	0.0	9.0	51.0	0.0
Total Split (%)	17%	17%	0%	17%	17%	0%	10%	57%	0%	10%	57%	0%
Yellow Time (s)	4.8	4.8		4.8	4.8		5.0	4.8		5.0	4.8	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Coord		None	Coord	
Act Effct Green (s)	20.7	10.5		21.9	10.7		51.6	51.6		53.4	53.4	
Actuated g/C Ratio	0.23	0.12		0.24	0.12		0.57	0.57		0.59	0.59	
v/c Ratio	0.49	0.44		0.43	0.71		0.06	0.56		0.16	0.38	
Uniform Delay, d1	25.1	31.9		25.1	23.4		10.0	14.1		10.5	11.3	
Delay	25.6	30.9		26.1	28.9		8.9	13.8		7.3	6.4	
LOS	C	C		C	C		A	B		A	A	
Approach Delay		27.8			27.6			13.7			6.4	
Approach LOS		C			C			B			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 14.5
Intersection Capacity Utilization 59.7%

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 10: LA 939 & LA 44

ø2	ø1	ø3	ø4
51 s	9 s	15 s	15 s

ø5	ø6	ø7	ø8
9 s	51 s	15 s	15 s

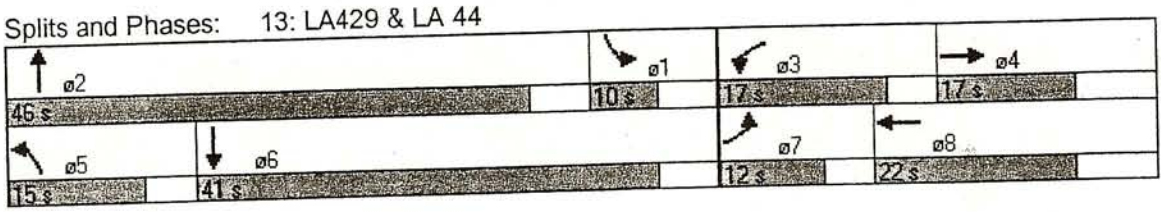
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1863	1583	1770	1825	0	1770	3465	0	1770	3497	0
Flt Permitted	0.662			0.382			0.271			0.283		
Satd. Flow (perm)	1233	1863	1583	712	1825	0	505	3465	0	527	3497	0
Satd. Flow (RTOR)			125		8			28			12	
Volume (vph)	74	141	115	111	119	18	134	782	131	32	507	44
Lane Group Flow (vph)	80	153	125	121	149	0	146	992	0	35	599	0
Turn Type	pm+pt		Perm	pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phases	7	4	4	3	8		5	2		1	6	
Minimum Initial (s)	4.0	7.0	7.0	4.0	7.0		4.0	15.0		4.0	15.0	
Minimum Split (s)	9.0	15.0	15.0	9.0	15.0		9.0	20.0		9.0	20.0	
Total Split (s)	12.0	17.0	17.0	17.0	22.0	0.0	15.0	46.0	0.0	10.0	41.0	0.0
Total Split (%)	13%	19%	19%	19%	24%	0%	17%	51%	0%	11%	46%	0%
Yellow Time (s)	4.0	6.4	6.4	4.0	6.4		4.0	4.8		4.8	4.8	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	Coord		None	None	
Act Effct Green (s)	19.8	12.4	12.4	25.4	17.0		49.6	49.6		42.9	42.9	
Actuated g/C Ratio	0.22	0.14	0.14	0.28	0.19		0.55	0.55		0.48	0.48	
v/c Ratio	0.25	0.60	0.38	0.38	0.42		0.36	0.52		0.10	0.36	
Uniform Delay, d1	23.2	35.6	0.0	23.4	30.4		11.3	14.0		13.7	15.1	
Delay	22.9	36.7	7.1	23.4	31.3		4.8	6.6		12.2	12.2	
LOS	C	D	A	C	C		A	A		B	B	
Approach Delay		23.3			27.7			6.4			12.2	
Approach LOS		C			C			A			B	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 12.8
Intersection Capacity Utilization 59.5%

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 13: LA429 & LA 44



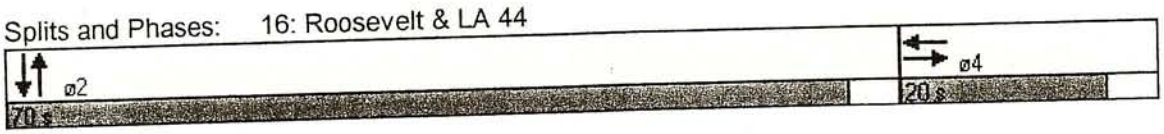
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1529	0	0	1595	0	0	3522	0	0	3529	0
Flt Permitted		0.912			0.893			0.943			0.946	
Satd. Flow (perm)	0	1422	0	0	1452	0	0	3324	0	0	3341	0
Satd. Flow (RTOR)		12			14			8			4	
Volume (vph)	8	2	11	29	29	17	14	889	25	6	584	8
Lane Group Flow (vph)	0	23	0	0	82	0	0	1008	0	0	651	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	70.0	70.0	0.0	70.0	70.0	0.0
Total Split (%)	22%	22%	0%	22%	22%	0%	78%	78%	0%	78%	78%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Coord	Coord		Coord	Coord	
Act Effct Green (s)		9.5			9.5			75.2			75.2	
Actuated g/C Ratio		0.11			0.11			0.84			0.84	
v/c Ratio		0.14			0.49			0.36			0.23	
Uniform Delay, d1		17.8			32.2			2.1			1.8	
Delay		23.0			31.0			1.4			1.3	
LOS		C			C			A			A	
Approach Delay		23.0			31.0			1.4			1.3	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 3.0
Intersection Capacity Utilization 44.1%

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 16: Roosevelt & LA 44



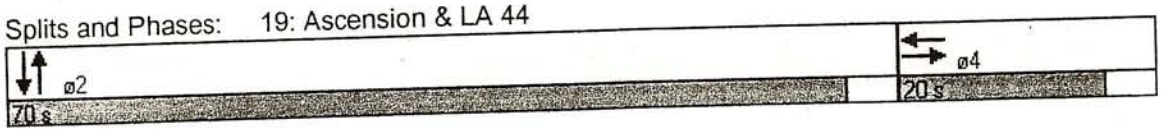
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1606	0	0	1630	0	0	3514	0	0	3525	0
Flt Permitted		0.944			0.964			0.889			0.930	
Satd. Flow (perm)	0	1533	0	0	1584	0	0	3134	0	0	3282	0
Satd. Flow (RTOR)		30			17			8			6	
Volume (vph)	13	16	28	6	17	16	47	801	22	13	532	12
Lane Group Flow (vph)	0	61	0	0	42	0	0	946	0	0	605	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	70.0	70.0	0.0	70.0	70.0	0.0
Total Split (%)	22%	22%	0%	22%	22%	0%	78%	78%	0%	78%	78%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Coord	Coord		Coord	Coord	
Act Effct Green (s)		7.5			7.5			77.2			77.2	
Actuated g/C Ratio		0.08			0.08			0.86			0.86	
v/c Ratio		0.39			0.28			0.35			0.21	
Uniform Delay, d1		20.1			23.5			1.6			1.4	
Delay		23.1			25.9			0.2			1.1	
LOS		C			C			A			A	
Approach Delay		23.1			25.9			0.2			1.1	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 2.0
Intersection Capacity Utilization 53.5%

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 19: Ascension & LA 44

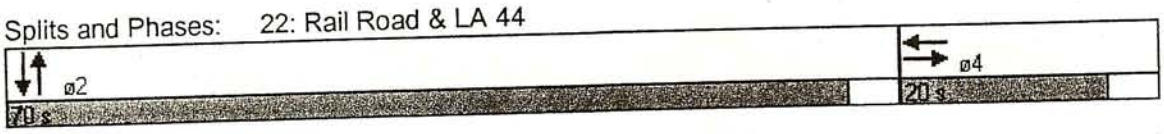


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1590	0	0	1508	0	0	3532	0	0	3522	0
Flt Permitted		0.887			0.987			0.953			0.932	
Satd. Flow (perm)	0	1442	0	0	1493	0	0	3366	0	0	3285	0
Satd. Flow (RTOR)		8			53			4			7	
Volume (vph)	15	11	7	5	14	49	4	849	12	13	581	15
Lane Group Flow (vph)	0	36	0	0	73	0	0	940	0	0	662	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	70.0	70.0	0.0	70.0	70.0	0.0
Total Split (%)	22%	22%	0%	22%	22%	0%	78%	78%	0%	78%	78%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Coord	Coord		Coord	Coord	
Act Effct Green (s)		7.5			7.5			77.2			77.2	
Actuated g/C Ratio		0.08			0.08			0.86			0.86	
v/c Ratio		0.28			0.42			0.33			0.23	
Uniform Delay, d1		30.8			10.8			1.6			1.4	
Delay		31.5			16.3			0.8			1.2	
LOS		C			B			A			A	
Approach Delay		31.5			16.3			0.8			1.2	
Approach LOS		C			B			A			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 2.2 — Intersection LOS: A
Intersection Capacity Utilization 38.1% — ICU Level of Service A

Splits and Phases: 22: Rail Road & LA 44

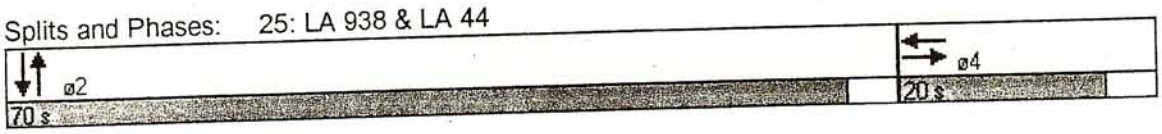


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1656	0	0	1627	0	0	3511	0	0	3514	0
Flt Permitted		0.901			0.904			0.918			0.906	
Satd. Flow (perm)	0	1515	0	0	1493	0	0	3230	0	0	3190	0
Satd. Flow (RTOR)		16			6			12			11	
Volume (vph)	42	60	33	24	48	9	30	776	33	21	514	20
Lane Group Flow (vph)	0	147	0	0	88	0	0	912	0	0	604	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	70.0	70.0	0.0	70.0	70.0	0.0
Total Split (%)	22%	22%	0%	22%	22%	0%	78%	78%	0%	78%	78%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Coord	Coord		Coord	Coord	
Act Effct Green (s)		12.4			12.4			69.6			69.6	
Actuated g/C Ratio		0.14			0.14			0.77			0.77	
v/c Ratio		0.66			0.42			0.36			0.24	
Uniform Delay, d1		32.7			33.0			3.2			2.8	
Delay		32.1			32.1			0.9			3.1	
LOS		C			C			A			A	
Approach Delay		32.1			32.1			0.9			3.1	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 5.9 — Intersection LOS: A
Intersection Capacity Utilization 55.1% — ICU Level of Service A

Splits and Phases: 25: LA 938 & LA 44

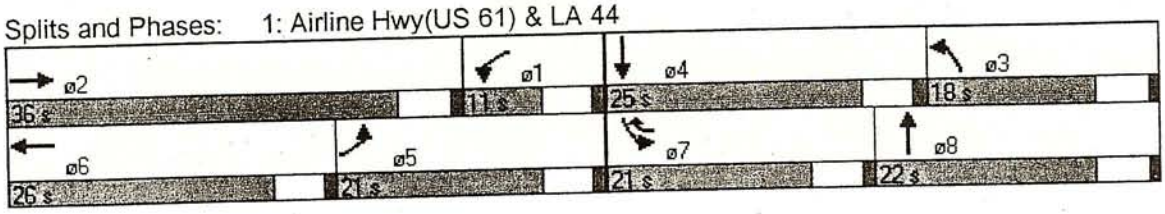


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3486	0	1770	3536	0
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1863	3486	0	1863	3536	0
Satd. Flow (RTOR)			217					11			1	
Volume (vph)	210	762	200	78	569	339	207	455	50	218	258	2
Lane Group Flow (vph)	228	828	217	85	618	368	225	549	0	237	282	0
Turn Type	Prot		Perm	Prot		pm+ov	pm+pt			pm+pt		
Protected Phases	5	2		1	6	7	3	8		7	4	
Permitted Phases			2			6	8			4		
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	10.0	12.0	12.0	10.0	12.0	12.0	12.0	12.0		12.0	12.0	
Total Split (s)	21.0	36.0	36.0	11.0	26.0	21.0	18.0	22.0	0.0	21.0	25.0	0.0
Total Split (%)	23%	40%	40%	12%	29%	23%	20%	24%	0%	23%	28%	0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Coord	None	None	None		None	None	
Act Effct Green (s)	15.9	36.3	36.3	7.0	25.1	40.6	20.3	17.4		15.6	12.7	
Actuated g/C Ratio	0.18	0.40	0.40	0.08	0.28	0.45	0.23	0.19		0.17	0.14	
v/c Ratio	0.73	0.58	0.28	0.62	0.63	0.51	0.54	0.80		0.74	0.57	
Uniform Delay, d1	34.1	21.8	0.0	41.4	29.2	9.2	30.8	33.8		35.3	35.9	
Delay	37.0	22.7	3.1	48.1	29.8	9.4	31.4	35.7		32.7	32.7	
LOS	D	C	A	D	C	A	C	D		C	C	
Approach Delay		21.9			24.3			34.5			32.7	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 26.8 Intersection LOS: C
Intersection Capacity Utilization 71.6% ICU Level of Service C

Splits and Phases: 1: Airline Hwy(US 61) & LA 44

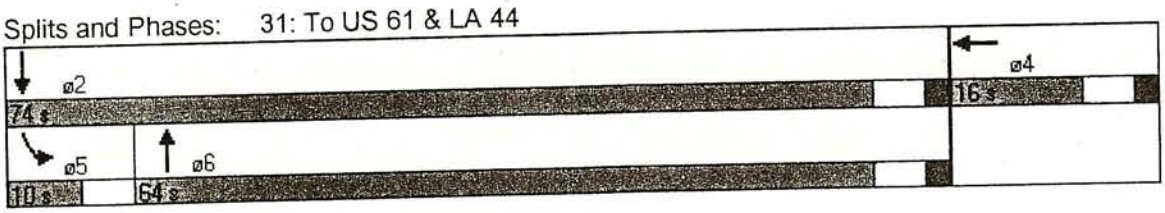


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	0	0	0	1717	0	0	3440	0	0	3483	0
Flt Permitted					0.992			0.943			0.719	
Satd. Flow (perm)	0	0	0	0	1717	0	0	3247	0	0	2519	0
Satd. Flow (RTOR)					51			61			27	
Volume (vph)	0	0	0	22	42	72	15	883	194	67	492	41
Lane Group Flow (vph)	0	0	0	0	148	0	0	1187	0	0	653	0
Turn Type				Perm			Perm			pm+pt		
Protected Phases					4			6		5	2	
Permitted Phases				4			6			2		
Detector Phases				4	4		6	6		5	2	
Minimum Initial (s)				8.0	8.0		8.0	8.0		3.0	8.0	
Minimum Split (s)				15.0	15.0		20.0	20.0		10.0	20.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	64.0	64.0	0.0	10.0	74.0	0.0
Total Split (%)	0%	0%	0%	18%	18%	0%	71%	71%	0%	11%	82%	0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0		0.0	2.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode				None	None		Coord	Coord		Min	Coord	
Act Effct Green (s)					11.3			61.2			70.7	
Actuated g/C Ratio					0.13			0.68			0.79	
v/c Ratio					0.57			0.53			0.32	
Uniform Delay, d1					23.9			6.8			2.4	
Delay					24.5			3.8			2.5	
LOS					C			A			A	
Approach Delay					24.5			3.8			2.5	
Approach LOS					C			A			A	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 81 (90%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 4.9 — Intersection LOS: A
Intersection Capacity Utilization 70.6% — ICU Level of Service C

Splits and Phases: 31: To US 61 & LA 44



ATTACHMENT C

MOBILE6 INPUT & OUTPUT

```
MOBILE6 INPUT FILE :
*12345678901234567 8:

POLLUTANTS          : HC NOX
REPORT FILE         : INTSECT.TXT
RUN DATA
EXPRESS HC AS VOC   :
NO REFUELING        :
MIN/MAX TEMPERATURE: 60.0 93.0

SCENARIO REC        : Scenario Title Text - SIGNAL SYNCHRONIZATION-GONZALES, LOUISIANA
CALENDAR YEAR       : 2002
EVALUATION MONTH    : 7
FUEL RVP            : 7.0
AVERAGE SPEED       : 2.5 ARTERIAL
END OF RUN
```


27

```
*************************************************************************
*                                                                       *
* MOBILE6.2.01 (31-Oct-2002)                                            *
* Input file: INT2.IN (file 1, run 1).                                  *
*************************************************************************
  M603 Comment:
            User has disabled the calculation of REFUELING emissions.


* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title Text - SIGNAL SYNCHRONIZATION-GONZALES, LOUISIANA

* File 1, Run 1, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  2.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M 48 Warning:
            there are no sales for vehicle class HDGV8b

                 Calendar Year:  2002
                         Month:  July
                      Altitude:  Low
            Minimum Temperature:  60.0 (F)
            Maximum Temperature:  93.0 (F)
              Absolute Humidity:   75. grains/lb
               Nominal Fuel RVP:   7.0 psi
                  Weathered RVP:   6.7 psi
            Fuel Sulfur Content:  279. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No
```

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.4568	0.3091	0.1063		0.0360	0.0008	0.0017	0.0833	0.0060	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	9.911	9.580	14.617	10.870	14.334	1.610	2.144	2.143	8.59	9.794
Composite NOX :	2.543	2.644	3.218	2.791	3.711	2.613	2.700	22.735	1.04	4.361

28

ATTACHMENT D

TRAFFIC COUNT INFORMATION

Traffic Counts During A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ LA 30)

Start Date	7/17/2002											
Start Time	16:30											
Site Code	30											
Street Name	North			East			South			West		
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
4:30 PM	49	72	32	22	62	13	19	97	13	6	132	82
4:45 PM	49	77	39	19	56	11	20	84	15	12	105	93
5:00 PM	46	60	37	16	107	10	23	110	13	10	130	86
5:15 PM	52	68	32	14	88	16	31	96	26	7	111	78
5:30 PM	40	52	45	24	68	13	14	89	10	12	138	71

Start Date	7/17/2002											
Start Time	7:15											
Site Code	30											
Street Name	North			East			South			West		
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
7:15 AM	38	35	4	12	124	17	10	29	7	2	24	24
7:30 AM	45	33	14	19	125	16	6	45	14	10	31	21
7:45 AM	49	39	9	21	95	12	15	87	14	5	26	50
8:00 AM	53	32	25	19	93	12	8	60	18	3	29	57
8:15 AM	36	29	13	19	53	11	6	58	13	5	22	47
8:30 AM	46	37	19	23	67	15	4	47	8	5	20	48
8:45 AM	49	47	22	12	59	11	4	44	12	14	15	32
9:00 AM	55	46	22	25	52	10	8	55	11	9	26	48

Traffic Counts at A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ LA 940)

Start Date	7/22/2002															
Start Time	7:30															
Site Code	7222															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:30 AM	24	96	1	0	0	0	0	0	0	118	6	0	9	0	14	0
7:45 AM	25	117	0	0	0	0	0	0	0	121	20	0	11	0	20	0
8:00 AM	21	129	0	0	0	0	0	0	0	108	14	0	9	0	11	0
8:15 AM	24	106	0	0	0	0	0	0	0	125	10	0	5	0	21	0
8:30 AM	19	124	0	0	0	0	0	0	0	128	2	0	14	1	31	0
8:45 AM	33	137	0	0	0	0	0	0	0	143	11	0	14	0	23	0
9:00 AM	23	137	0	0	0	0	0	0	0	133	9	0	16	0	34	0
9:15 AM	23	124	0	0	0	0	0	0	0	143	10	0	3	0	28	0

Start Date	7/22/2002															
Start Time	15:45															
Site Code	7222															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:45 PM	29	166	0	0	0	0	0	0	19	187	16	0	20	0	49	0
4:00 PM	29	175	0	0	0	0	0	0	0	200	7	0	26	0	49	0
4:15 PM	21	150	0	0	0	0	0	0	0	203	8	0	18	0	56	0
4:30 PM	28	182	0	0	0	0	0	0	0	199	7	0	20	0	48	0

Traffic Counts at A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ Rome St.)

Start Date	7/16/2002															
Start Time	7:45															
Site Code	3															
Street Name	from north				east				south				west			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:45 AM	0	155	2	0	6	0	17	0	8	145	0	0	0	0	0	0
8:00 AM	0	110	6	0	5	0	13	0	4	133	0	0	0	0	0	0
8:15 AM	0	129	3	0	2	0	11	0	8	116	0	0	0	0	0	0
8:30 AM	0	137	3	0	4	0	4	1	9	119	0	0	0	0	0	0
8:45 AM	0	138	0	0	3	0	13	0	8	137	0	0	0	0	0	0
9:00 AM	0	161	2	0	6	0	7	0	10	147	0	0	0	0	0	0
9:15 AM	0	141	1	0	2	0	12	0	11	161	0	0	0	0	0	0

Start Date	7/16/2002															
Start Time	16:15															
Site Code	3															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
4:15 PM	3	180	6	0	7	0	21	0	26	255	0	0	0	0	0	0
4:30 PM	0	201	3	0	15	0	15	0	26	236	0	1	0	0	0	0
4:45 PM	0	191	1	0	6	0	23	0	20	229	0	0	0	0	0	0
5:00 PM	0	165	0	0	6	0	24	0	20	179	0	0	0	0	0	0

Traffic Counts A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44@LA 939)

Start Date	7/16/2002															
Start Time	6:45															
Site Code	40000000															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
6:45 AM	28	130	35	0	11	14	20	0	43	99	10	0	6	14	30	0
7:00 AM	22	108	22	0	10	18	21	0	49	105	7	0	3	16	13	0
7:15 AM	20	118	17	0	22	18	24	0	33	92	5	0	3	6	15	0
7:30 AM	15	117	15	0	16	10	33	0	37	86	10	0	1	17	20	0
7:45 AM	20	113	31	0	39	12	32	1	35	101	3	1	6	16	21	0
8:00 AM	23	120	21	2	20	18	34	0	29	137	3	0	4	11	16	0
8:15 AM	16	106	12	0	20	13	42	0	41	127	6	0	5	6	12	0
8:30 AM	16	122	17	0	11	6	30	0	27	134	7	0	2	12	21	0

Start Date	7/16/2002															
Start Time	15:30															
Site Code	71600421															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:30 PM	17	157	13	0	12	15	26	0	27	208	5	0	1	19	18	0
3:45 PM	21	136	19	0	14	16	36	0	45	209	1	0	5	16	14	1
4:00 PM	26	164	16	0	11	28	41	0	27	174	4	0	3	18	14	0
4:15 PM	20	133	15	0	26	15	49	0	32	181	7	0	8	9	19	0
4:30 PM	16	163	10	0	32	20	39	1	29	211	3	0	7	14	28	0
4:45 PM	25	137	13	0	20	17	36	0	40	240	8	0	6	18	38	0
5:00 PM	28	182	13	0	34	18	38	0	34	245	3	0	6	18	34	0
5:15 PM	28	152	10	0	15	14	37	0	35	194	5	0	6	16	25	0
5:30 PM	23	148	12	0	15	26	37	0	25	209	7	0	6	17	24	0

Traffic Counts at A.M. 7 P.M. Peak Hours at 15 Min Intervals (LA 44 @ La 429)

Start Date	7/16/2002															
Start Time	7:45															
Site Code	0															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:45 AM	18	94	13	0	23	33	7	0	9	128	8	0	5	11	17	0
8:00 AM	15	99	11	0	27	13	10	0	12	111	5	0	3	8	15	0
8:15 AM	16	91	12	0	29	18	4	0	8	126	13	0	3	7	18	0
8:30 AM	15	114	17	0	14	22	9	0	6	122	9	0	7	16	13	0
8:45 AM	26	111	29	1	32	20	9	0	7	134	8	0	11	9	20	0
9:00 AM	18	122	19	0	18	16	9	0	15	96	4	0	4	16	17	0
9:15 AM	20	114	14	0	19	27	11	0	12	96	8	0	9	22	18	0
9:30 AM	30	123	11	0	26	14	7	0	5	118	2	0	5	16	24	0

Start Date	7/16/2002															
Start Time	15:30															
Site Code	7170031															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:30 PM	10	126	9	0	7	16	24	0	32	161	33	0	32	25	14	0
3:45 PM	12	109	8	0	3	23	31	0	45	195	24	0	26	38	15	0
4:00 PM	18	132	6	0	9	22	28	0	32	137	25	0	33	35	18	0
4:15 PM	8	116	7	0	5	34	27	0	34	177	23	0	29	30	13	0
4:30 PM	9	127	5	0	3	35	30	0	41	175	33	0	32	35	21	0
4:45 PM	12	120	7	0	5	27	23	0	31	217	39	0	28	37	16	0
5:00 PM	9	134	12	0	5	29	28	0	35	203	41	0	32	31	15	0
5:15 PM	14	126	8	0	5	28	30	0	24	187	21	0	23	38	22	0

Traffic Counts at A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ Roosevelt St.)

Start Date	7/17/2002															
Start Time	7:15															
Site Code	71700512															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:15 AM	3	127	0	0	3	1	2	0	0	54	0	0	0	0	0	0
7:30 AM	2	140	1	0	0	1	0	0	0	74	1	0	3	0	0	0
7:45 AM	1	151	4	0	3	2	1	0	2	97	1	0	3	2	0	0
8:00 AM	0	130	2	0	4	4	2	0	2	91	1	0	1	1	0	0
8:15 AM	2	152	1	0	3	1	0	0	3	112	4	0	3	1	0	0
8:30 AM	3	127	3	0	4	3	4	0	2	107	5	0	2	2	2	0
8:45 AM	2	174	3	0	4	6	2	0	4	121	2	0	0	3	2	0
9:00 AM	2	136	2	0	3	2	5	0	1	140	5	0	4	3	0	0
	12	696	16		12	24	20		16	560	20		16	12	8	
Start Date	7/17/2002															
Start Time	15:30															
Site Code	61700522															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:30 PM	4	153	2	0	7	4	4	0	6	187	0	0	3	2	0	0
3:45 PM	3	151	1	0	10	0	4	0	5	217	2	0	1	1	0	0
4:00 PM	1	134	3	0	3	2	8	0	5	192	2	0	4	1	1	0
4:15 PM	1	143	1	0	2	2	1	0	7	200	1	0	1	4	2	0
4:30 PM	2	145	2	0	4	4	6	0	2	212	2	0	4	1	2	0
4:45 PM	0	145	2	0	5	2	7	0	9	231	5	0	3	0	2	0
5:00 PM	2	134	0	0	2	20	10	0	6	242	4	0	1	1	2	0
5:15 PM	4	160	2	0	6	3	6	0	8	204	3	0	3	0	2	0

Traffic Counts during A.M. & P.M. Peak Hours at 15 min intervals (LA 44 @ Ascension)

Start Date	7/17/2002														
Start Time	7:15														
Site Code	7170022														
Street Name	From North				From East				From South				From West		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:15 AM	2	52	3	0	2	2	3	0	4	124	3	0	1	2	3	0
7:30 AM	6	72	3	0	4	5	2	0	6	144	5	0	4	4	1	0
7:45 AM	5	84	9	0	4	17	3	0	11	139	3	0	1	2	0	0
8:00 AM	4	83	5	0	6	3	1	0	5	131	1	0	2	5	1	0
8:15 AM	3	106	6	0	4	2	4	0	1	154	2	0	4	5	3	0
8:30 AM	2	103	6	0	2	3	1	0	2	130	2	0	1	4	2	0
8:45 AM	5	105	3	0	3	2	5	0	9	169	2	1	3	8	5	0
9:00 AM	3	116	7	0	4	2	5	0	2	118	5	0	2	2	0	0

Start Date	7/17/2002														
Start Time	15:30														
Site Code	7170024														
Street Name	From North				From East				From South				From West		
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:30 PM	5	146	4	0	3	3	1	0	3	195	4	0	11	4	3	0
3:45 PM	4	127	0	0	4	14	8	0	2	182	8	0	5	0	1	0
4:00 PM	3	132	4	0	0	2	3	0	7	193	6	0	10	1	2	0
4:15 PM	3	114	2	0	6	4	7	0	6	165	5	0	9	3	3	0
4:30 PM	2	135	3	0	5	4	1	0	5	205	10	0	7	4	5	0
4:45 PM	4	136	2	0	4	5	2	0	6	187	20	0	3	5	3	0
5:00 PM	4	132	5	0	4	4	1	0	6	227	7	0	9	4	2	0
5:15 PM	2	129	3	0	3	4	2	0	5	182	10	0	9	3	3	0

Traffic Counts at A.M & P.M. Peak Hours at 15 Min Intervals (LA 44 @ Rail Road)

Start Date	7/18/2002															
Start Time	7:15															
Site Code	6284															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:15 AM	4	106	6	0	4	7	1	0	1	62	2	0	0	10	1	0
7:30 AM	2	141	9	0	3	5	2	0	1	71	0	0	2	3	1	0
7:45 AM	1	165	13	0	4	0	0	0	2	93	0	0	1	2	4	0
8:00 AM	1	138	3	0	4	2	0	0	3	89	1	0	1	0	3	0
8:15 AM	2	143	4	0	3	1	0	0	2	118	0	0	1	0	2	0
8:30 AM	2	155	5	0	5	0	1	0	1	114	1	0	1	6	3	0
8:45 AM	7	191	7	0	4	0	1	0	2	144	3	0	3	2	3	1

Start Date	7/18/2002															
Start Time	15:45															
Site Code	9999															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:45 PM	1	148	3	0	9	4	0	0	1	193	4	0	1	4	1	0
4:00 PM	12	139	7	0	5	5	5	0	5	182	0	0	0	1	5	0
4:15 PM	4	118	3	0	7	2	0	0	3	194	0	0	0	2	5	0
4:30 PM	3	148	2	0	19	5	1	0	6	198	1	0	0	1	4	0
4:45 PM	5	149	6	0	12	5	1	0	1	201	0	0	0	4	7	0
5:00 PM	5	145	1	0	10	1	2	0	4	255	0	0	3	2	3	0
5:15 PM	2	139	4	0	8	3	1	0	1	195	3	0	4	4	1	0

Traffic Counts at A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ New River)

Start Date	7/18/2002															
Start Time	7:30															
Site Code	7180032															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:30 AM	2	65	4	0	6	11	5	0	2	134	7	0	9	14	3	0
7:45 AM	6	74	6	0	11	5	4	0	1	148	10	0	8	10	5	0
8:00 AM	4	71	2	0	13	4	7	0	3	135	6	0	5	9	7	0
8:15 AM	8	103	8	0	10	23	8	0	1	131	3	0	11	2	3	0
8:30 AM	3	91	4	0	7	9	10	0	3	146	8	0	11	3	2	0
8:45 AM	8	117	6	0	14	8	7	0	3	142	1	0	4	6	3	0
9:00 AM	3	116	7	0	14	6	6	0	1	130	1	0	4	6	1	0
9:15 AM	7	117	6	0	8	4	6	0	5	113	3	0	4	6	1	0

Start Date	7/18/2002															
Start Time	15:15															
Site Code	1807031															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:15 PM	4	123	6	0	4	7	6	0	7	182	11	0	17	17	2	0
3:30 PM	3	139	2	0	3	7	10	0	9	177	5	0	10	10	6	0
3:45 PM	4	100	1	0	2	5	4	0	12	187	6	0	11	15	10	0
4:00 PM	5	144	2	0	8	11	9	0	30	185	5	1	8	16	11	0
4:15 PM	4	139	3	0	2	9	6	0	12	189	2	0	4	17	11	0
4:30 PM	8	119	9	0	5	15	3	0	10	231	11	0	4	13	10	0
4:45 PM	4	129	5	0	1	12	6	0	5	181	10	0	13	15	9	0
5:00 PM	4	127	4	0	1	12	9	0	6	175	7	0	12	15	12	0

Traffic Counts at A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44@Airline Hwy (US 61))

Start Date	7/18/2002															
Start Time	7:30															
Site Code	71800912															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:30 AM	3	109	66	0	28	97	9	0	3	41	38	0	52	101	19	0
7:45 AM	2	86	42	0	20	84	6	0	10	51	33	0	51	104	19	0
8:00 AM	0	77	39	0	33	101	15	0	3	34	43	0	48	89	14	0
8:15 AM	1	106	55	0	23	78	8	0	24	67	37	0	54	95	11	0
8:30 AM	0	89	58	0	39	97	6	0	8	47	44	0	49	102	17	0
8:45 AM	0	66	35	0	33	69	18	0	3	54	45	0	62	103	25	0
9:00 AM	1	65	50	0	38	75	16	0	9	51	37	0	40	96	14	0
9:15 AM	0	69	50	0	22	69	13	0	8	43	37	0	43	93	17	0

Start Date	7/18/2002															
Start Time	15:30															
Site Code	71800521															
Street Name	From North				From East				From South				From West			
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
3:30 PM	0	61	57	0	81	128	16	0	17	85	48	0	64	152	30	0
3:45 PM	0	70	57	0	77	122	14	0	16	96	57	0	48	190	50	0
4:00 PM	0	63	53	0	81	106	12	0	13	100	46	0	43	149	37	0
4:15 PM	3	52	49	0	67	123	19	0	25	108	44	0	46	166	31	0
4:30 PM	0	54	59	0	77	133	18	0	9	101	35	0	49	192	47	0
4:45 PM	1	63	58	0	72	146	17	0	15	126	58	0	44	183	68	0
5:00 PM	1	65	51	0	102	162	18	0	11	120	65	0	55	194	47	0

Traffic Counts At A.M. & P.M. Peak Hours at 15 Min Intervals (LA 44 @ LA 935)

	Left	Right	Thru
A.M. Peak Hour			
From North	102	65	700
From South	30	311	65
From West	34	124	43
P.Pm.Peak Hour			
From North	67	41	492
From South	15	194	833
From West	22	72	42