

50-322-063 LILCO EX #35

7/23/87

A-35

1985 HCM: SIGNALIZED INTERSECTIONS

DOCKETED
USMTC

Page:

IDENTIFYING INFORMATION

'87 SEP 17 P12:10

NAME OF THE EAST/WEST STREET.....SUNRISE HWY- RT 27

NAME OF THE NORTH/SOUTH STREET.....NEWBRIDGE ROAD

AREA TYPE.....OTHER

PEDESTRIAN WALKING SPEED..... 0 (feet/sec)

NAME OF THE ANALYST.....BG

DATE OF THE ANALYSIS.....4/24/87

TIME PERIOD ANALYZED.....0700-1000

OTHER INFORMATION:

File 1193 30% Evacuation

TRAFFIC VOLUMES

	EB	WB	NB	SB
	----	----	----	----
LEFT	80	261	112	75
THRU	990	1367	203	102
RIGHT	443	30	204	50
RTOR	40	30	40	40

(RTOR volume must be less than or equal to RIGHT turn volumes.)

NUCLEAR REGULATORY COMMISSION

35

Official Exp. No.

50-322-01-3 *Shoukran*

Nuclear Power Station

in the matter of *Lighting Co*

IDENTIFIED *Unit-1*

RECEIVED *Unit-1*

REJECTED *Unit-1*

DATE *7-23-81*

Witness

Contractor

Other

Reporter *J. & Sue Walker & Mary Higgins*

INTERSECTION GEOMETRY

Page

NUMBER OF LANES PER DIRECTION INCLUDING TURN BAYS:

EASTBOUND = 5 WESTBOUND = 5 NORTHBOUND = 2 SOUTHBOUND = 2

LANE	EB		WB		NB		SB	
	TYPE	WIDTH	TYPE	WIDTH	TYPE	WIDTH	TYPE	WIDTH
1	L	11.0	L	11.0	L	10.0	L	10.0
2	T	11.0	T	11.0	TR	10.0	TR	10.0
3	T	11.0	T	11.0		12.0		12.0
4	T	11.0	T	11.0		12.0		12.0
5	R	11.0	R	11.0		12.0		12.0
6		12.0		12.0		12.0		12.0

L - EXCLUSIVE LEFT LANE

LT - LEFT/THROUGH LANE

LR - LEFT/RIGHT ONLY LANE

LTR - LEFT/THROUGH/RIGHT LANE

T - EXCLUSIVE THROUGH LANE

TR - THROUGH/RIGHT LANE

R - EXCLUSIVE RIGHT LANE

ADJUSTMENT FACTORS

	GRADE (%)	HEAVY VEH. (%)	ADJACENT PKG Y/N	PKG (Nm)	BUSES (Nb)	PHF
EASTBOUND	0.00	9.00	N	0	0	0.99
WESTBOUND	0.00	6.00	N	0	0	0.99
NORTHBOUND	0.00	1.00	N	0	0	0.99
SOUTHBOUND	0.00	1.00	N	0	0	0.95

Nm = number of parking maneuvers/hr; Nb = number of buses stopping

	CONFLICTING PEDS (peds/hour)	PEDESTRIAN BUTTON (Y/N)	(min T)	ARRIVAL T
EASTBOUND	25	N	17.8	2
WESTBOUND	25	N	17.8	4
NORTHBOUND	25	N	35.3	3
SOUTHBOUND	25	N	35.3	3

min T = minimum green time for pedestrians

SIGNAL SETTINGS - DESIGN ANALYSIS

Page

ACTUATED

LOST TIME/CYCLE = 8.0

CYCLE LENGTH = 120.0

EAST/WEST PHASING

	PHASE-1	PHASE-2	PHASE-3	PHASE-4
EASTBOUND				
LEFT	X	X		
THRU		X		
RIGHT		X		
PEDS		X		
WESTBOUND				
LEFT	X	X		
THRU		X		
RIGHT		X		
PEDS		X		
NORTHBOUND RT				
SOUTHBOUND RT				

NORTH/SOUTH PHASING

	PHASE-1	PHASE-2	PHASE-3	PHASE-4
NORTHBOUND				
LEFT	X			
THRU	X			
RIGHT	X			
PEDS	X			
SOUTHBOUND				
LEFT	X			
THRU	X			
RIGHT	X			
PEDS	X			
EASTBOUND RT				
WESTBOUND RT				

EFFECTIVE GREENS - DESIGN ANALYSIS

Page

EFFECTIVE GREEN. g

EASTBOUND

LEFT

Permitted

64.00

Protected

13.00

THRU

68.00

RIGHT

Permitted

68.00

Protected

0.00

WESTBOUND

LEFT

Permitted

72.00

Protected

21.00

THRU

60.00

RIGHT

Permitted

60.00

Protected

0.00

NORTHBOUND

LEFT

Permitted

27.00

Protected

0.00

THRU

27.00

RIGHT

Permitted

27.00

Protected

0.00

SOUTHBOUND

LEFT

Permitted

27.00

Protected

0.00

THRU

27.00

RIGHT

Permitted

27.00

Protected

0.00

VOLUME ADJUSTMENT WORKSHEET

Page:

	MVT.		ADJ.	LANE	LANE				ADJ.		
	VOL.	PHF	VOL.	GRP.	GRP.	NO.	UTIL.	GROWTH	GRP.	PROP	PRC
	----	----	----	----	----	---	----	----	----	----	----
EB											
LT	80	0.99	81	L	81	1	1.000	1.000	81	1.00	0.0
TH	993	0.99	993	T	993	3	1.100	1.000	1092	0.00	0.0
RT	443	0.99	407	R	407	1	1.000	1.000	407	0.00	1.0
WB											
LT	361	0.99	365	L	365	1	1.000	1.000	365	1.00	0.0
TH	1367	0.99	1381	T	1381	3	1.100	1.000	1519	0.00	0.0
RT	30	0.99	0	R	0	1	1.000	1.000	0	0.00	1.0
NB											
LT	112	0.99	113	L	113	1	1.000	1.000	113	1.00	0.0
TH	203	0.99	205	TR	371	1	1.000	1.000	371	0.00	0.4
RT	204	0.99						1.000			
SB											
LT	75	0.85	88	L	88	1	1.000	1.000	88	1.00	0.0
TH	102	0.85	120	TR	132	1	1.000	1.000	132	0.00	0.0
RT	50	0.85						1.000			

* Denotes a Defacto Left Turn Lane Group

SATURATION FLOW ADJUSTMENT WORKSHEET

Page

	IDEAL											ADJ.
	SAT.	NO.	f	f	f	f	f	f	f	f		SAT
	FLOW	LNS	w	HV	G	D	BB	A	RT	LT		FLC
EB												
L	1800	1	0.970	0.955	1.000	1.000	1.000	1.000	1.000	0.950		158
T	1800	3	0.970	0.955	1.000	1.000	1.000	1.000	1.000	1.000		500
R	1800	1	0.970	0.955	1.000	1.000	1.000	1.000	0.838	1.000		139
WE												
L	1800	1	0.970	0.970	1.000	1.000	1.000	1.000	1.000	0.950		160
T	1800	3	0.970	0.970	1.000	1.000	1.000	1.000	1.000	1.000		508
R	1800	1	0.970	0.970	1.000	1.000	1.000	1.000	0.838	1.000		141
NE												
L	1800	1	0.930	0.995	1.000	1.000	1.000	1.000	1.000	0.661		110
TR	1800	1	0.930	0.995	1.000	1.000	1.000	1.000	0.928	1.000		154
SB												
L	1800	1	0.930	0.995	1.000	1.000	1.000	1.000	1.000	0.208		34
TR	1800	1	0.930	0.995	1.000	1.000	1.000	1.000	0.985	1.000		164

	ADJ. FLOW RATE (v)	ADJ. SAT. FLOW RATE (s)	FLOW RATIO (v/s)	GREEN RATIO (g/C)	LANE GROUP CAPACITY (c)	v/c RATIO
EB						
Lperm.	21					
Lprot.	60	1584	0.038	0.108	172	0.349
T	1092	5002	0.218	0.567	2635	0.385
R	407	1397	0.292	0.567	792	0.515
WB						
Lperm.	169					
Lprot.	195	1609	0.121	0.175	282	0.693 *
T	1519	5081	0.299	0.500	2540	0.559 *
R	0	1419	0.000	0.500	710	0.000
NB						
L	113	1101	0.103	0.225	248	0.457
TR	371	1545	0.240	0.225	348	1.068
SB						
L	89	347	0.254	0.225	78	1.130 *
TR	192	1641	0.080	0.225	369	0.357

Cycle Length, C = 120.0 sec.

Sum (v/s) critical = 0.674

Lost Time Per Cycle, L = 8.0 sec.

X critical = 0.723

LEVEL-OF-SERVICE WORKSHEET

Page

	V/C	g/C	CYCLE	DELAY	LANE	DELAY		LANE	LANE	DELAY	LOS
	RATIO	RATIO	LEN.	d	GROUP	d	PROG. FACT.	GRP. DELAY	GRP. LOS	BY APP.	BY APP.
				1	CAP.	2					
EB											
L	0.349	0.642	120.0	7.5	172	0.5	1.00	8.1	B	12.1	B
T	0.385	0.567	120.0	11.0	2805	0.0	1.08	11.9	B		
R	0.515	0.567	120.0	12.1	792	0.5	1.08	13.6	B		
WB											
L	0.693	0.775	120.0	5.0	282	4.9	1.00	9.9	B	10.2	B
T	0.598	0.500	120.0	16.3	2540	0.3	0.62	10.3	B		
R	0.000	0.500	120.0	11.4	710	0.0	0.62	7.1	B		
NB											
L	0.457	0.450	120.0	30.5	248	1.0	1.00	31.5	D	69.3	F
TR	1.068	0.225	120.0	36.0	348	59.0	0.85	80.8	F		
SB											
L	1.130	0.450	120.0	36.7	73	138.7	1.00	175.4	F	85.6	F
TR	0.357	0.225	120.0	29.8	367	0.3	0.85	25.5	D		

Intersection Delay = 21.8 (sec/veh) Intersection LOS = C