Kimley»Horn

TECHNICAL MEMORANDUM

12/19/2023

To: Mr. Danny Cameron
City of West University Place

From: Vivek Deshpande, P.E.
Kimley-Horn and Associates, Inc.
Firm Number F-928

Date: December 19, 2023

Subject: Weslayan Street – Traffic Signal Timing Coordination
Technical Memorandum

SUMMARY

Kimley-Horn has prepared this memorandum for the City of West University Place to provide recommendations for proposed traffic signal timing plans at four (4) signalized intersections along Weslayan Street between Bissonnet Street and Bellaire Boulevard to improve overall traffic progression through the corridor. This memorandum includes a description of existing conditions, methodology for the development of signal timing plans, and recommendations for proposed traffic signal timings.

PROJECT AREA

Weslayan Street is a north-south roadway running through the City of West University Place. It is a two-lane road through the study area. The signalized study intersections are shown in **Figure 1** and include the following:

1. Bissonnet Street at Weslayan Street (City of Houston)
2. Rice Boulevard at Weslayan Street
3. University Boulevard at Weslayan Street
4. Bellaire Boulevard at Stella Link Road (City of Southside Place)

Figure 1 – Study Intersections

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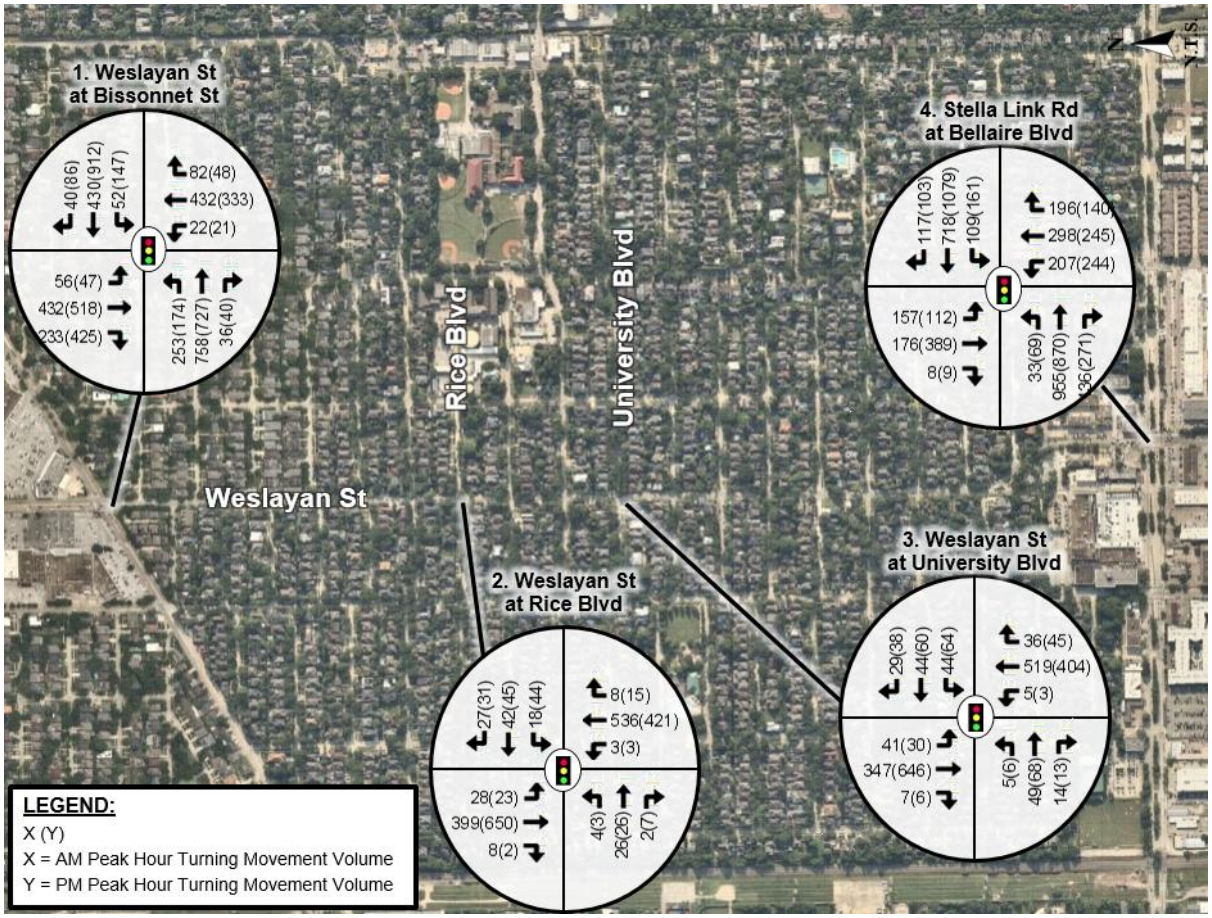
DATA COLLECTION

Traffic Volume Counts

Turning movement counts were collected at study intersections on Tuesday May 16, 2023, from 6:30 AM to 9:30 AM, 11:00 AM to 1:00 PM, and 3:00 PM to 7:00 PM in 15-minute intervals. Peak hours of the network were determined to be 7:30 AM and 5:00 PM. Peak hours of the network were determined to be 7:30-8:30 AM and 5:00-6:00 PM. AM and PM peak hour volumes are provided as **Exhibit 1**. Raw count data is provided as **Attachment A**.

Exhibit 1 – Peak Hour Volumes



Existing Signal Operations

Information regarding existing signal timings and phasing, including phase sequences and controller timing parameters (e.g., minimums, maximums, yellow clearances, all-reds, walk times, pedestrian clearances, lead/lag phasing, coordination splits, and recalls) was obtained from the City of West University Place, City of Houston, and City of Southside Place. A summary of existing signal operations at study intersections is provided as **Table 1**.

Existing signal operations at Rice Boulevard and University Boulevard operate as 'Free' operations where the signal dwells in green on Weslayan Street and only serves the side streets when there is vehicular or pedestrian demand on the side street identified by video detection camera for vehicles and push-buttons for pedestrians respectively. The signals do not have a set time of day schedule that varies by AM, Midday, and PM peak periods.

Table 1 – Existing Signal Operations

Int No.	Cross Street	Major Road Left Turn	Cross Street Left Turn	Ped Signals	Cycle Length			
					AM	Mid-Day	PM	Off-Peak
1	Bissonnet St	Protected	NB: Permissive SB: Protected	Y	120	120	120	90
2*	Rice Blvd	Permissive	Permissive	Y	88			
3*	University Blvd	Permissive	Permissive	Y	88			
4	Bellaire Blvd	Protected	Split	Y	120	120	120	90

*Rice Boulevard and University Boulevard signals operate in 'Free' mode in existing conditions, dwelling in green on Weslayan Street. Approximate cycle length is shown for these intersections.

Below is a summary of how the signal timing plans change by time of day.

City of Houston

- Midnight – 6:00 am – Off-Peak (Plan 1)
- 6:00 – 9:00 am – AM Peak (Plan 2)
- 9:00 – 11:00 am – Off Peak (Plan 1)
- 11:00 am – 3:00 pm – Mid-day (Plan 4)
- 3:00 – 7:30 pm – PM Peak (Plan 3)
- 7:30 pm – Midnight – Off Peak (Plan 1)

City of Southside Place

- Midnight – 6:00 am – Off-Peak (Plan 1)
- 6:00 – 9:30 am – AM Peak (Plan 2)
- 9:30 am – 3:00 pm – Mid-day (Plan 1)
- 3:00 – 6:30 pm – PM Peak (Plan 3)
- 6:30 pm – Midnight – Off Peak (Plan 1)

TRAFFIC SIGNAL ANALYSES

Capacity Analysis

Traffic analysis at study area intersections was performed to ensure the proposed plans provided the most optimized and efficient intersection conditions. Analysis was performed for three (3) peak hour periods: AM, MD, and PM. LOS, which is a measure of the degree of congestion, ranges from LOS A (free flowing) to LOS F (a congested, forced flow condition). LOS thresholds for signalized intersections are presented in **Table 2**.

Table 2 – Level of Service Thresholds

Level of Service	Average Total Delay (Sec/Veh)	Description
A	≤ 10	No delays at intersections with continuous flow traffic. Uncongested operations; high frequency of long gaps available for all left and right-turning traffic; no observable queues.
B	> 10 and ≤ 20	
C	> 20 and ≤ 35	Moderate delays at intersections with satisfactory to good traffic flow. Light congestion; infrequent backups on critical approaches.
D	> 35 and ≤ 55	Increased probability of delays along every approach. Significant congestion on critical approaches, but intersection functional. No long-standing lines formed.
E	> 55 and ≤ 80	Heavy traffic flow condition. Heavy delays probable. No available gaps for cross-street traffic or main street turning traffic. Limit of stable flow.
F	> 80	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Average delays greater than one minute highly probable. Total breakdown.

For both unsignalized and signalized intersection LOS, if the volume-to-capacity ratio is greater than one, then the intersection/approach LOS is LOS F. LOS D or better is generally deemed as acceptable operations for an urban/suburban area.

Traffic analysis of the study area was conducted using *Synchro 11*™ software. Analysis output is provided as **Attachment B**. A summary of reported delay and LOS for existing conditions is provided as **Table 3**.

Table 3 – Existing LOS Summary

Study Intersection			AM		PM	
			Delay	LOS	Delay	LOS
1	Bissonnet St at Weslayan St	Eastbound	36.0	D	41.0	D
		Westbound	37.8	D	34.7	C
		Northbound	51.0	D	52.5	D
		Southbound	33.9	C	46.0	D
		Intersection	**38.7**	**D**	**41.7**	**D**
2	Rice Blvd at Weslayan St	Eastbound	12.1	B	14.2	B
		Westbound	11.4	B	16.4	B
		Northbound	7.3	A	5.8	A
		Southbound	6.5	A	8.1	A
		Intersection	**7.4**	**A**	**8.1**	**A**
3	University Blvd at Weslayan St	Eastbound	11.5	B	16.6	B
		Westbound	13.3	B	19.2	B
		Northbound	7.9	A	7.3	A
		Southbound	6.7	A	10.7	B
		Intersection	**8.2**	**A**	**10.9**	**B**
4	Bellaire Blvd at Stella Link Rd	Eastbound	36.9	D	39.7	D
		Westbound	38.2	D	42.1	D
		Northbound	43.6	D	50.5	D
		Southbound	55.5	E	57.3	E
		Intersection	**40.9**	**D**	**44.8**	**D**

The intersections of Weslayan Street at Rice Boulevard and Weslayan Street at University Boulevard operate at LOS A in both AM and PM peak hours, with the eastbound and westbound directions at the intersections operating with minimal delay at LOS B. Weslayan Street at Bissonnet Street and Stella Link Road at Bellaire Boulevard operate at LOS D during the AM and PM peak hours. Notably, the southbound approach of Stella Link Road at Bellaire Boulevard operates at LOS E in both peak hours.

Vehicle and Pedestrian Clearance Times

Vehicle clearance times are calculated based on guidelines provided by the Institute of Transportation Engineers (ITE). The yellow clearance interval is primarily a function of the speed of the roadway facility and red clearance is a function of both speed and crossing width of the intersection.

Pedestrian movements across signalized intersections are facilitated by the use of pedestrian signals and pushbuttons. It is essential that adequate time is provided for the pedestrian to enter the intersection (walk interval) and then safely cross the street (pedestrian clearance interval). The walk interval used for all study intersections is 5 seconds. The pedestrian clearance interval was calculated based on the crossing street's width and an average pedestrian walk speed of 3.5 feet per second.

Calculations for vehicular and pedestrian clearance times are provided as **Attachment C**.

System and Cycle Length Analysis

Typically, a cycle length evaluation is conducted to determine optimal cycle lengths of a system. Signal operations at the intersection of Weslayan Street at Bissonnet Street are maintained by the City of Houston and the intersection is part of a coordinated system along Bissonnet Street. Similarly, signal operations at Stella Link Road at Bellaire Boulevard are maintained by the City of Southside Place and the intersection is part of a larger coordinated system along Bellaire Boulevard which includes Houston METRO transit routes. To avoid changes to the larger systems running along Bissonnet Street and Bellaire Boulevard, the cycle lengths at those two intersections are not recommended to be changed.

Under existing conditions, traffic platoon from Bissonnet Street may stop at the signal at Rice Boulevard heading south on Weslayan Street and may stop again at University Boulevard signal since both these signals operate under 'Free' mode. To improve progression of traffic flow along the corridor, the signals need to be coordinated to run the same cycle length with an appropriate 'offset' that determines when an approach turns green. As a result, cycle lengths for the intersections of Weslayan Street at Rice Boulevard and Weslayan Street at University Boulevard were set to match those of Weslayan Street at Bissonnet Street and Stella Link Road at Bellaire Boulevard and analyzed for performance in two scenarios:

- Scenario 1: 60 second cycle lengths in the AM and 120 second cycle lengths in the PM
- Scenario 2: 120 second cycle lengths with double service of all approaches within one cycle

Split times at Rice Boulevard and at University Boulevard were calculated based on vehicular demand and offsets were determined to achieve high arrivals on green on Weslayan Street. LOS and delay for existing, Scenario 1, and Scenario 2 are shown in **Table 4**. Time-space diagrams showing 'green bands,' the time within a signal cycle during which a vehicle could travel either northbound or southbound on Weslayan Street without stopping at an intersection, and 'flows,' where each vehicle traveling on Weslayan Street is represented by one line, are included in **Attachment D**.

Scenario 1 and Scenario 2 would result in decreases in delay for Weslayan Street northbound at Bissonnet Street in the AM peak and for Stella Link Road southbound at Bellaire Boulevard in the PM peak as a result of vehicles arriving on green and waiting less time to be served. Both scenarios show increased delay on Rice Boulevard and on University Boulevard eastbound and westbound approaches due to the coordination settings prioritizing timings on Weslayan Street. Notably, Scenario 1 in the PM peak indicates that increases in delay would result in LOS D and LOS E for eastbound and westbound, approaches respectively. Scenario 2 results in LOS C or better in both AM peak hour and PM peak hour on Rice Boulevard and on University Boulevard, which is a degradation from existing conditions of LOS B.

Table 4 – Signal Timing Analysis Results

Study Intersections			AM Peak						PM Peak					
			Existing		Scenario 1		Scenario 2		Existing		Scenario 1		Scenario 2	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Bissonnet St at Weslayan St	EB	36.0	D	36.0	D	36.0	D	41.0	D	41.0	D	41.0	D
		WB	37.8	D	37.8	D	37.8	D	34.7	C	34.7	C	34.7	C
		NB	51.0	D	34.5	C	31.1	C	52.5	D	63.2	E	62.1	E
		SB	33.9	C	33.9	C	33.9	C	46.0	D	46.0	D	46.0	D
		Int.	**38.7**	**D**	**35.5**	**D**	**34.8**	**C**	**41.7**	**D**	**42.9**	**D**	**42.8**	**D**
2	Rice Blvd at Weslayan St	EB	12.1	B	22.0	C	22.4	C	14.2	B	40.8	D	19.9	B
		WB	11.4	B	20.8	C	23.1	C	16.4	B	59.2	E	26.6	C
		NB	7.3	A	5.1	A	12.3	B	5.8	A	1.0	A	6.5	A
		SB	6.5	A	2.2	A	2.5	A	8.1	A	1.9	A	4.6	A
		Int.	**7.4**	**A**	**5.7**	**A**	**9.6**	**A**	**8.1**	**A**	**7.1**	**A**	**7.4**	**A**
3	University Blvd at Weslayan St	EB	11.5	B	14.3	B	21.1	C	16.6	B	44.6	D	21.9	C
		WB	13.3	B	15.0	B	26.9	C	19.2	B	64.5	E	29.3	C
		NB	7.9	A	8.5	A	4.9	A	7.3	A	15.2	B	8.3	A
		SB	6.7	A	12.7	B	2.3	A	10.7	B	2.1	A	3.7	A
		Int.	**8.2**	**A**	**11.0**	**B**	**7.2**	**A**	**10.9**	**B**	**16.5**	**B**	**9.4**	**A**
4	Bellaire Blvd at Stella Link Rd	EB	36.9	D	38.0	D	35.7	D	39.7	D	38.9	D	38.9	D
		WB	38.2	D	31.6	C	37.4	D	42.1	D	39.6	D	39.6	D
		NB	43.6	D	43.1	D	43.1	D	50.5	D	49.4	D	49.4	D
		SB	55.5	E	61.9	E	54.7	D	57.3	E	49.9	D	46.8	D
		Int.	**40.9**	**D**	**39.8**	**D**	**40.0**	**D**	**44.8**	**D**	**42.4**	**D**	**42.0**	**D**

*Delay shown in seconds per vehicle

Proposed Signal Timing Plans

Based on discussions with the City, to avoid anticipated increase in delay on Rice Boulevard and University Boulevard in Scenario 1 and Scenario 2, the traffic signals at Weslayan Street at Rice Boulevard and Weslayan Street at University Boulevard are recommended to remain in free/ uncoordinated operation with slight adjustments to maximum green times (Max1). Additionally, the bottleneck locations along Weslayan Street and Stella Link Road are at the intersections with Bissonnet Street and Bellaire Boulevard. Improving coordination on Weslayan Street at Rice Boulevard and at University Boulevard could result in increased queue lengths and/or delays at northbound Bissonnet Street and southbound Bellaire Boulevard. Timing sheets detailing recommendations for minimum green, clearance intervals, max times, and other timing parameters are provided as **Attachment E**.

STELLA LINK ROAD ALTERNATE GEOMETRY

During site observations, long queues formed southbound on Stella Link Road at Bellaire Boulevard. As the signal operations of Stella Link Road at Bellaire Boulevard are not maintained by the City of West University Place, signal timing changes would require coordination with City of Southside Place. To decrease the southbound queue length, extending the second lane on Stella Link Road may be considered. This would require widening of existing pavement on both east and west sides of the current roadway. Due to constrained available right-of-way, widening existing pavement may impact existing trees along western edge of the pavement. Extending the lane is expected to decrease overall queue lengths due the increase in storage space; however, delay for the southbound direction would be expected to remain similar to that of existing conditions.

Attachments:

A. Volume Data
B. Synchro Output
C. Clearance Interval Calculations
D. Time-Space Diagrams
E. Summary Timing Sheets
F. Stella Link Road Southbound Lane Extension

A. VOLUME DATA

National Data & Surveying Services Intersection Turning Movement Count

Location: Weslayan St & Bissonnet St
City: Houston
Control: Signalized

Project ID: 23-450085-001
Date: 5/16/2023

Data - Totals

NS/EW Streets:	Weslayan St				Weslayan St				Bissonnet St				Bissonnet St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1	0.5	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	38	3	0	5	46	14	0	17	40	5	0	1	22	4	0	195
6:45 AM	3	51	3	0	5	49	33	0	38	85	1	0	1	28	5	0	302
7:00 AM	4	84	17	0	9	75	32	0	31	77	8	0	4	47	3	0	391
7:15 AM	1	102	17	0	8	83	49	0	57	135	4	0	2	68	8	0	534
7:30 AM	4	142	17	0	18	112	53	0	75	149	4	0	5	90	7	0	676
7:45 AM	6	101	22	0	18	94	65	0	73	226	12	0	9	133	11	0	770
8:00 AM	4	124	18	0	15	113	49	0	57	165	8	0	14	98	11	0	676
8:15 AM	7	93	19	0	13	113	53	0	66	185	11	0	16	109	8	0	693
8:30 AM	5	114	23	0	10	112	66	0	57	182	5	0	13	90	10	0	687
8:45 AM	4	101	23	0	12	113	47	1	69	185	8	0	17	89	11	0	680
9:00 AM	5	99	16	0	12	104	54	0	45	145	8	0	16	88	17	0	609
9:15 AM	9	91	15	0	11	95	62	0	40	94	10	0	8	74	23	0	532
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	1140	193	0	136	1109	577	1	625	1668	84	0	106	936	118	0	6745
APPROACH %'s :	3.75%	82.31%	13.94%	0.00%	7.46%	60.83%	31.65%	0.05%	26.29%	70.17%	3.53%	0.00%	9.14%	80.69%	10.17%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	22	432	82	0	56	432	233	0	253	758	36	0	52	430	40	0	2826
PEAK HR FACTOR :	0.786	0.871	0.891	0.000	0.778	0.956	0.883	0.000	0.866	0.838	0.750	0.000	0.813	0.808	0.909	0.000	0.918
		0.918				0.959				0.842				0.853			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1	0.5	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	8	94	13	0	15	86	66	0	39	93	8	0	15	87	20	0	544
11:15 AM	3	107	12	0	16	130	77	0	40	89	10	0	19	89	21	0	613
11:30 AM	4	90	10	0	16	96	77	0	42	97	9	0	7	105	25	1	579
11:45 AM	2	87	6	0	28	127	81	0	40	99	13	0	13	108	23	0	627
12:00 PM	7	81	9	0	21	100	75	0	45	111	9	0	28	129	33	0	648
12:15 PM	5	98	16	0	23	116	76	0	47	96	9	0	17	129	15	0	647
12:30 PM	6	91	15	0	16	87	92	0	44	101	10	0	27	124	17	0	630
12:45 PM	8	83	13	0	21	122	67	0	38	91	7	0	16	123	25	0	614
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	43	731	94	0	156	864	611	0	335	777	75	0	142	894	179	1	4902
APPROACH %'s :	4.95%	84.22%	10.83%	0.00%	9.56%	52.97%	37.46%	0.00%	28.22%	65.46%	6.32%	0.00%	11.68%	73.52%	14.72%	0.08%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	20	357	46	0	88	430	324	0	176	407	41	0	85	490	88	0	2552
PEAK HR FACTOR :	0.714	0.911	0.719	0.000	0.786	0.846	0.880	0.000	0.936	0.917	0.788	0.000	0.759	0.950	0.667	0.000	0.985
		0.889				0.892				0.945				0.872			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1	0.5	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	4	75	12	0	19	116	89	0	45	99	8	0	31	143	22	0	663
3:15 PM	0	90	12	0	17	121	86	0	42	98	8	0	37	165	15	0	691
3:30 PM	5	74	16	0	13	109	86	1	36	113	4	0	39	182	28	0	706
3:45 PM	3	79	16	0	12	127	87	1	40	82	5	0	33	163	17	0	665
4:00 PM	0	89	11	0	9	127	104	0	39	172	10	0	42	245	23	0	871
4:15 PM	6	82	12	0	27	136	113	0	44	141	8	0	32	183	23	0	807
4:30 PM	1	81	5	0	19	122	99	0	36	140	16	0	50	228	27	0	824
4:45 PM	4	86	14	0	10	135	98	0	42	145	9	0	34	216	15	0	808
5:00 PM	2	83	17	0	3	135	103	0	43	193	11	0	43	216	22	0	871
5:15 PM	5	88	11	0	14	146	117	0	46	204	8	0	26	243	12	0	920
5:30 PM	7	89	10	0	16	110	86	0	41	177	10	0	37	254	26	0	863
5:45 PM	7	73	10	0	14	127	119	0	44	153	11	0	41	199	26	0	824
6:00 PM	3	81	15	0	9	123	103	0	43	162	14	0	44	200	18	0	815
6:15 PM	5	96	7	0	15	130	122	0	48	135	2	0	34	185	19	0	798
6:30 PM	0	62	10	0	15	104	99	0	47	113	6	0	27	145	13	0	641
6:45 PM	3	81	10	0	11	115	97	0	37	104	4	0	19	116	14	0	611
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	55	1309	188	0	223	1983	1608	2	673	2231	134	0	569	3083	320	0	12378
APPROACH %'s :	3.54%	84.34%	12.11%	0.00%	5.84%	51.97%	42.14%	0.05%	22.15%	73.44%	4.41%	0.00%	14.33%	77.62%	8.06%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	21	333	48	0	47	518	425	0	174	727	40	0	147	912	86	0	3478
PEAK HR FACTOR :	0.750	0.935	0.706	0.000	0.734	0.887	0.893	0.000	0.946	0.891	0.909	0.000	0.855	0.898	0.827	0.000	0.945
		0.948				0.894				0.912				0.903			

Prepared by National Data & Surveying Services

Weslayan St & Bissonnet St

Peak Hour Turning Movement Count

ID: 23-450085-001
City: Houston

Day: Tuesday
Date: 5/16/2023

PEAK HOURS

- AM: 07:45 AM - 08:45 AM
- NOON: 11:45 AM - 12:45 PM
- PM: 05:00 PM - 06:00 PM

COUNT PERIODS

- AM: 6:30 AM - 09:30 AM
- NOON: 11:00 AM - 01:00 PM
- PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2826	2552	3478
PHF	0.92	0.98	0.95

SOUTHBOUND (Weslayan St)

	L	T	R	U	Total	
AM	233	432	56	0	725	AM
NOON	324	430	88	0	621	NOON
PM	425	518	47	0	593	PM

EASTBOUND (Bissonnet St)

	AM	NOON	PM
Left	0	0	0
Through	685	834	1358
Right	36	41	40
U-turn	0	0	0
Through	758	407	727
Left	253	176	174

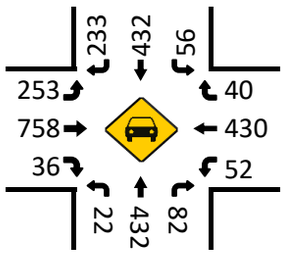
WESTBOUND (Bissonnet St)

	PM	NOON	AM
Left	86	88	40
Through	912	490	430
Right	822	541	896
U-turn	0	0	0
Through	147	85	52
Left	0	0	0

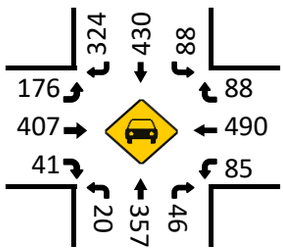
NORTHBOUND (Weslayan St)

	L	T	R	U	Total	
PM	705	0	21	333	48	PM
NOON	556	0	20	357	46	NOON
AM	520	0	22	432	82	AM

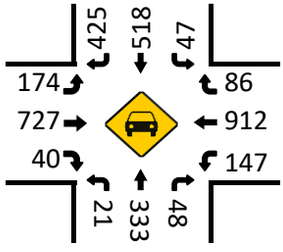
Totals (AM)



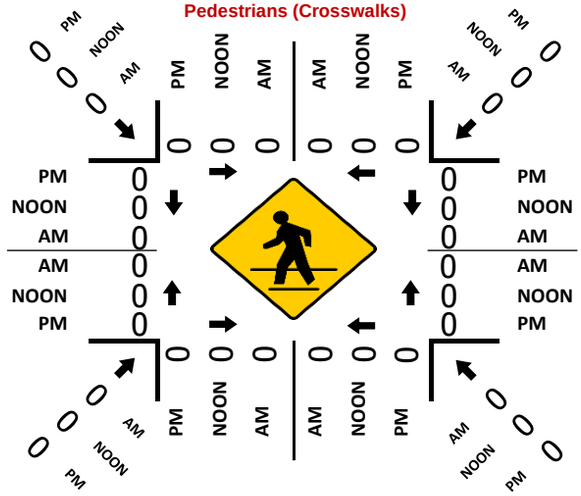
Totals (NOON)



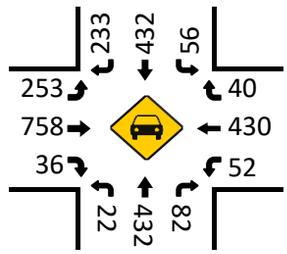
Totals (PM)



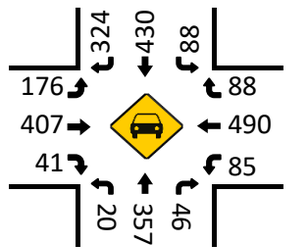
Pedestrians (Crosswalks)



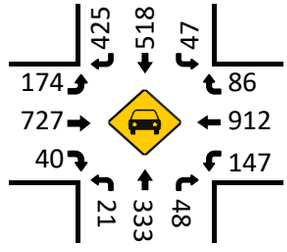
Totals (AM)



Totals (NOON)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Weslayan St & Rice Blvd
City: Houston
Control: Signalized

Project ID: 23-450085-002
Date: 5/16/2023

Data - Totals

NS/EW Streets:	Weslayan St				Weslayan St				Rice Blvd				Rice Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
6:30 AM	0	36	0	0	5	44	0	0	0	1	0	0	0	0	4	0	90
6:45 AM	0	59	1	0	5	40	0	0	1	4	1	0	0	0	2	0	113
7:00 AM	1	88	2	0	8	64	0	0	0	7	0	0	1	0	10	0	181
7:15 AM	2	121	8	0	14	71	0	0	1	25	4	0	1	10	3	0	260
7:30 AM	0	158	2	0	5	86	0	0	1	13	1	0	6	24	5	0	301
7:45 AM	0	131	1	0	2	102	3	0	2	3	1	0	3	12	14	0	274
8:00 AM	0	117	2	0	8	89	5	0	1	7	0	0	5	2	3	0	239
8:15 AM	3	130	3	0	13	122	0	0	0	3	0	0	4	4	5	0	287
8:30 AM	0	128	4	0	7	102	1	0	2	4	1	0	6	3	7	0	265
8:45 AM	0	126	1	0	10	118	2	0	1	7	1	0	3	3	10	0	282
9:00 AM	0	103	2	0	13	97	0	0	0	1	1	0	1	2	17	0	237
9:15 AM	0	101	1	0	9	84	2	0	1	1	0	0	3	3	8	0	213
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	1298	27	0	99	1019	13	0	10	76	10	0	33	63	88	0	2742
APPROACH %'s :	0.45%	97.52%	2.03%	0.00%	8.75%	90.10%	1.15%	0.00%	10.42%	79.17%	10.42%	0.00%	17.93%	34.24%	47.83%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	3	536	8	0	28	399	8	0	4	26	2	0	18	42	27	0	1101
PEAK HR FACTOR :	0.250	0.848	0.667	0.000	0.538	0.818	0.400	0.000	0.500	0.500	0.500	0.000	0.750	0.438	0.482	0.000	0.914
		0.855				0.806				0.533				0.621			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
11:00 AM	0	106	4	0	10	90	0	0	1	4	0	0	1	3	8	0	227
11:15 AM	1	94	3	0	12	109	0	0	0	5	1	0	6	4	8	0	243
11:30 AM	0	77	5	0	10	113	1	0	0	3	3	0	1	3	6	0	222
11:45 AM	1	87	2	0	14	122	1	0	1	4	1	0	4	6	6	0	249
12:00 PM	0	95	3	0	12	113	2	0	0	6	1	0	1	8	5	0	246
12:15 PM	2	105	4	0	6	106	0	0	0	7	0	0	3	7	7	0	247
12:30 PM	2	107	3	0	7	117	0	0	1	2	1	0	0	5	9	0	254
12:45 PM	0	81	3	0	8	116	1	0	1	2	0	0	1	10	7	0	230
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	752	27	0	79	886	5	0	4	33	7	0	17	46	56	0	1918
APPROACH %'s :	0.76%	95.80%	3.44%	0.00%	8.14%	91.34%	0.52%	0.00%	9.09%	75.00%	15.91%	0.00%	14.29%	38.66%	47.06%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	5	394	12	0	39	458	3	0	2	19	3	0	8	26	27	0	996
PEAK HR FACTOR :	0.625	0.921	0.750	0.000	0.696	0.939	0.375	0.000	0.500	0.679	0.750	0.000	0.500	0.813	0.750	0.000	0.980
		0.917				0.912				0.857				0.897			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:00 PM	1	117	3	0	6	127	1	0	1	4	1	0	5	25	9	0	300
3:15 PM	0	103	1	0	9	137	2	0	0	5	0	0	4	12	9	0	282
3:30 PM	3	86	3	0	2	145	1	0	0	3	2	0	7	7	13	0	272
3:45 PM	0	89	6	0	5	131	1	0	0	5	0	0	6	7	3	0	253
4:00 PM	2	95	4	0	4	160	3	0	0	9	2	0	7	12	12	0	310
4:15 PM	0	117	4	0	4	148	0	0	1	5	0	0	8	14	5	0	306
4:30 PM	0	79	4	0	4	172	0	0	0	5	0	0	12	12	8	0	296
4:45 PM	0	100	3	0	3	150	1	0	1	10	3	0	14	10	7	0	302
5:00 PM	1	119	4	0	10	171	0	0	1	8	1	0	7	14	10	0	346
5:15 PM	2	123	4	0	6	157	1	0	1	3	3	0	11	9	6	0	326
5:30 PM	3	83	8	0	3	141	1	0	0	6	0	0	12	9	6	0	272
5:45 PM	1	104	6	0	6	163	2	0	2	3	2	0	2	10	4	0	305
6:00 PM	0	94	3	0	4	160	2	0	0	3	3	0	5	5	10	0	289
6:15 PM	0	83	2	0	1	138	1	0	2	2	3	0	6	4	2	0	244
6:30 PM	0	75	2	0	5	129	0	0	2	4	1	0	9	5	4	0	236
6:45 PM	0	87	4	0	7	111	2	0	1	4	1	0	3	6	1	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	1554	61	0	79	2340	18	0	12	79	22	0	118	161	109	0	4566
APPROACH %'s :	0.80%	95.45%	3.75%	0.00%	3.24%	96.02%	0.74%	0.00%	10.62%	69.91%	19.47%	0.00%	30.41%	41.49%	28.09%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	421	15	0	23	650	2	0	3	26	7	0	44	45	31	0	1270
PEAK HR FACTOR :	0.375	0.856	0.938	0.000	0.575	0.945	0.500	0.000	0.750	0.650	0.583	0.000	0.786	0.804	0.775	0.000	0.918
		0.851				0.932				0.643				0.938			

Prepared by National Data & Surveying Services

Weslayan St & Rice Blvd

Peak Hour Turning Movement Count

ID: 23-450085-002
City: Houston

Day: Tuesday
Date: 5/16/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	11:45 AM - 12:45 PM
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	6:30 AM - 09:30 AM
NOON	11:00 AM - 01:00 PM
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Weslayan St)

AM	8	399	28	0	567	AM
NOON	3	458	39	0	423	NOON
PM	2	650	23	0	455	PM

EASTBOUND (Rice Blvd)

AM	NOON	PM		
53	34	50	⇦	
0	0	0	↶	0
4	2	3	↰	0
26	19	26	→	1
2	3	7	↱	0
AM	NOON	PM		

WESTBOUND (Rice Blvd)

PM	NOON	AM		
31	27	27	↶	0
45	26	42	←	1
44	8	18	↰	0
0	0	0	↱	0
64	70	62	⇨	
PM	NOON	AM		

NORTHBOUND (Weslayan St)

PM	701	0	3	421	15	PM
NOON	469	0	5	394	12	NOON
AM	419	0	3	536	8	AM

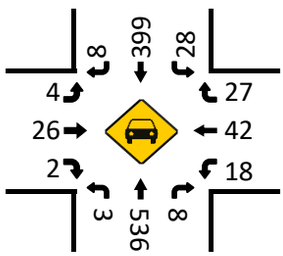
↶	↰	→	↱	
0	0	1	0	

CONTROL

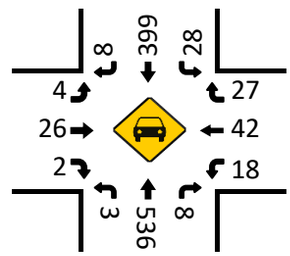
Signalized

TEV	1101	996	1270
	AM	NOON	PM
PHF	0.91	0.98	0.92

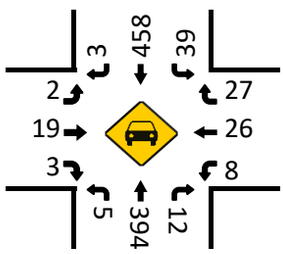
Totals (AM)



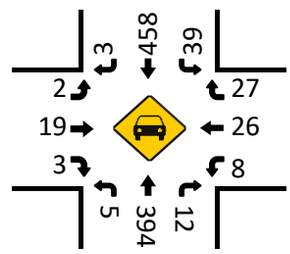
Totals (AM)



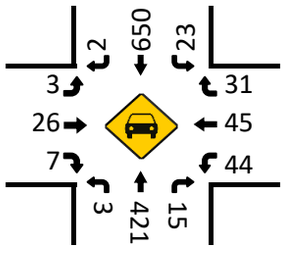
Totals (NOON)



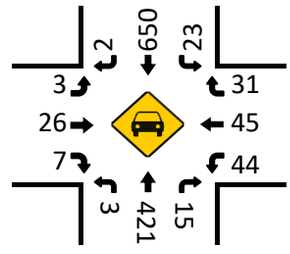
Totals (NOON)



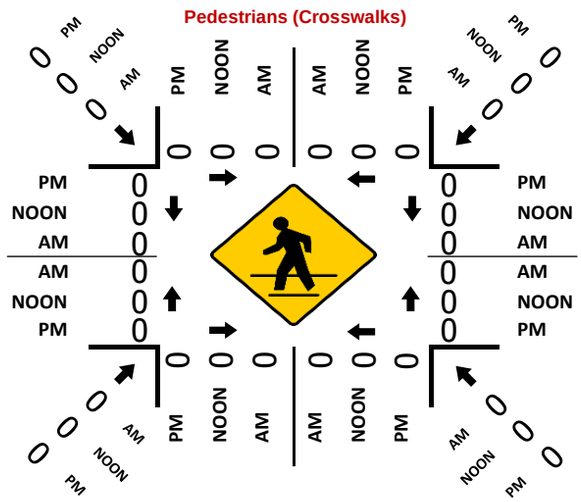
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Weslayan St & University Blvd
City: Houston
Control: Signalized

Project ID: 23-450085-003
Date: 5/16/2023

Data - Totals

NS/EW Streets:	Weslayan St				Weslayan St				University Blvd				University Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
6:30 AM	0	36	3	0	7	28	1	0	1	2	0	0	2	1	2	0	83
6:45 AM	0	53	3	0	5	36	0	0	0	2	2	0	1	1	3	0	106
7:00 AM	0	85	11	0	10	43	1	0	1	12	1	0	3	8	10	0	185
7:15 AM	0	112	15	0	11	52	0	0	3	41	2	0	7	16	12	0	271
7:30 AM	1	146	9	0	14	78	0	0	3	17	1	0	11	18	10	0	308
7:45 AM	1	131	9	0	6	82	3	0	1	11	4	0	18	11	8	0	285
8:00 AM	0	121	10	0	9	86	2	0	0	11	5	0	6	6	4	0	260
8:15 AM	3	121	8	0	12	101	2	0	1	10	4	0	9	9	7	0	287
8:30 AM	1	130	16	0	9	92	1	0	1	15	1	0	6	4	11	0	287
8:45 AM	0	114	15	0	16	88	4	0	1	8	1	0	10	3	4	0	264
9:00 AM	1	95	11	0	17	88	3	0	3	10	0	0	12	7	9	0	256
9:15 AM	1	87	14	0	12	75	2	0	3	12	1	0	13	3	11	0	234
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	1231	124	0	128	849	19	0	18	151	22	0	98	87	91	0	2826
APPROACH %'s :	0.59%	90.32%	9.10%	0.00%	12.85%	85.24%	1.91%	0.00%	9.42%	79.06%	11.52%	0.00%	35.51%	31.52%	32.97%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	5	519	36	0	41	347	7	0	5	49	14	0	44	44	29	0	1140
PEAK HR FACTOR :	0.417	0.889	0.900	0.000	0.732	0.859	0.583	0.000	0.417	0.721	0.700	0.000	0.611	0.611	0.725	0.000	0.925
		0.897				0.859				0.810				0.750			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
11:00 AM	0	99	11	0	4	89	2	0	0	5	2	0	5	4	10	0	231
11:15 AM	1	93	12	0	12	104	2	0	2	15	4	0	7	7	10	0	269
11:30 AM	2	75	9	0	14	102	1	0	0	6	3	0	9	11	9	0	241
11:45 AM	2	70	8	0	18	105	1	0	1	6	2	0	8	8	14	0	243
12:00 PM	0	92	3	0	12	97	2	0	0	9	0	0	10	4	9	0	238
12:15 PM	1	101	11	0	17	88	5	0	0	11	3	0	6	6	6	0	255
12:30 PM	0	97	5	0	11	103	2	0	1	12	1	0	8	8	15	0	263
12:45 PM	2	78	10	0	12	95	1	0	1	9	1	0	5	10	11	0	235
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	705	69	0	100	783	16	0	5	73	16	0	58	58	84	0	1975
APPROACH %'s :	1.02%	90.15%	8.82%	0.00%	11.12%	87.10%	1.78%	0.00%	5.32%	77.66%	17.02%	0.00%	29.00%	29.00%	42.00%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	3	360	27	0	58	393	10	0	2	38	6	0	32	26	44	0	999
PEAK HR FACTOR :	0.375	0.891	0.614	0.000	0.806	0.936	0.500	0.000	0.500	0.792	0.500	0.000	0.800	0.813	0.733	0.000	0.950
		0.863				0.929				0.821				0.823			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:00 PM	0	110	14	0	11	112	2	0	2	8	4	0	18	20	14	0	315
3:15 PM	0	86	14	0	2	132	1	0	1	11	2	0	15	24	13	0	301
3:30 PM	1	85	11	0	8	143	2	0	0	11	3	0	25	21	6	0	316
3:45 PM	2	89	22	0	7	130	3	0	2	18	1	0	13	21	7	0	315
4:00 PM	2	88	10	0	8	147	1	0	2	16	6	0	22	11	7	0	320
4:15 PM	2	121	3	0	9	143	0	0	3	24	3	0	18	16	6	0	348
4:30 PM	3	79	12	0	10	157	4	0	1	13	5	0	19	21	9	0	333
4:45 PM	0	98	17	0	6	157	1	0	1	18	6	0	12	6	6	0	328
5:00 PM	0	114	14	0	7	163	1	0	3	16	1	0	17	18	11	0	365
5:15 PM	0	113	2	0	7	169	0	0	1	21	1	0	16	15	12	0	357
5:30 PM	5	86	15	0	13	132	0	0	2	14	2	0	14	13	9	0	305
5:45 PM	1	106	10	0	7	152	1	0	0	11	2	0	13	14	12	0	329
6:00 PM	2	85	7	0	6	159	3	0	1	17	3	0	14	10	9	0	316
6:15 PM	1	80	8	0	11	133	1	0	0	10	1	0	14	6	10	0	275
6:30 PM	0	71	12	0	6	120	3	0	1	8	3	0	12	3	10	0	249
6:45 PM	1	89	10	0	12	109	2	0	0	9	1	0	8	4	5	0	250
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	20	1500	181	0	130	2258	25	0	20	225	44	0	250	223	146	0	5022
APPROACH %'s :	1.18%	88.18%	10.64%	0.00%	5.39%	93.58%	1.04%	0.00%	6.92%	77.85%	15.22%	0.00%	40.39%	36.03%	23.59%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	404	45	0	30	646	6	0	6	68	13	0	64	60	38	0	1383
PEAK HR FACTOR :	0.250	0.886	0.662	0.000	0.750	0.956	0.375	0.000	0.500	0.810	0.542	0.000	0.842	0.714	0.792	0.000	0.947
		0.883				0.969				0.870				0.827			

Prepared by National Data & Surveying Services

Weslayan St & University Blvd

Peak Hour Turning Movement Count

ID: 23-450085-003
City: Houston

Day: Tuesday
Date: 5/16/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	11:45 AM - 12:45 PM
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	6:30 AM - 09:30 AM
NOON	11:00 AM - 01:00 PM
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Weslayan St)

AM	7	347	41	0	553	AM
NOON	10	393	58	0	406	NOON
PM	6	646	30	0	448	PM

EASTBOUND (University Blvd)

AM	NOON	PM		
56	39	69		
0	0	0	0	
5	2	6	0	
49	38	68	1	
14	6	13	0	
AM	NOON	PM		

WESTBOUND (University Blvd)

	PM	NOON	AM
0	38	44	29
1	60	26	44
0	64	32	44
0	0	0	0
	143	123	126
	PM	NOON	AM

NORTHBOUND (Weslayan St)

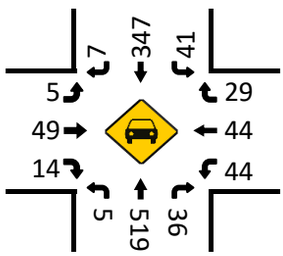
PM	723	0	3	404	45	PM
NOON	431	0	3	360	27	NOON
AM	405	0	5	519	36	AM

CONTROL

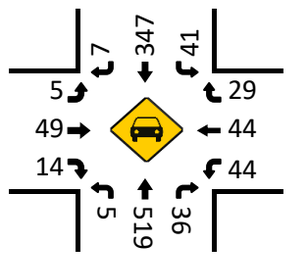
Signalized

TEV	1140 AM	999 NOON	1383 PM
PHF	0.93	0.95	0.95

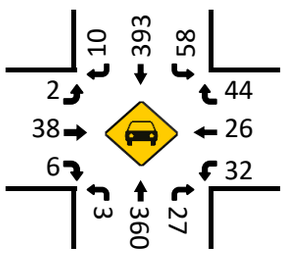
Totals (AM)



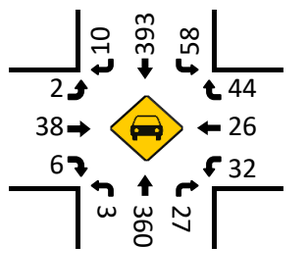
Totals (AM)



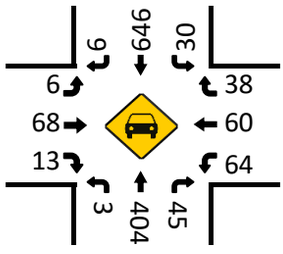
Totals (NOON)



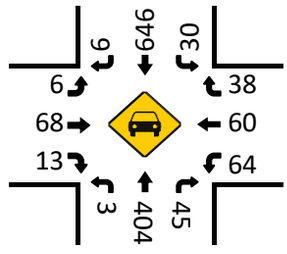
Totals (NOON)



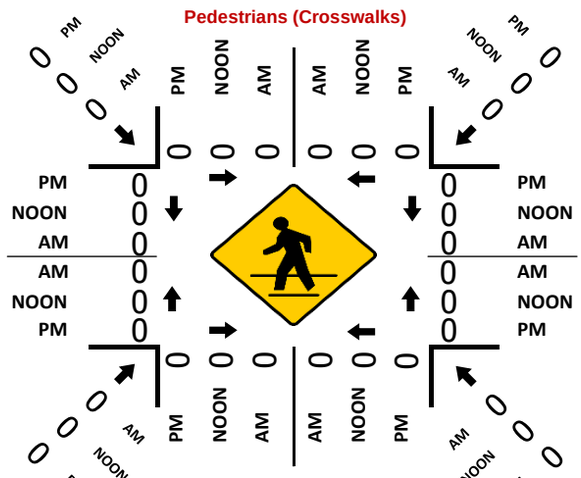
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Stella Link Rd & Bellaire Blvd
City: Houston
Control: Signalized

Project ID: 23-450085-004
Date: 5/16/2023

Data - Totals

NS/EW Streets:	Stella Link Rd				Stella Link Rd				Bellaire Blvd				Bellaire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	0.5	1	0.5	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	17	26	23	0	15	10	0	0	1	178	5	0	13	55	1	1	345
6:45 AM	20	34	23	0	11	16	3	0	9	147	13	0	9	49	5	0	339
7:00 AM	32	40	26	0	13	22	3	0	11	176	22	1	16	91	19	0	472
7:15 AM	63	59	30	0	30	27	2	0	11	215	20	0	17	128	15	1	618
7:30 AM	50	83	59	0	38	33	1	0	6	266	26	0	21	198	33	1	815
7:45 AM	50	71	61	0	49	50	4	0	7	239	27	0	34	192	27	0	811
8:00 AM	48	63	40	0	32	31	2	0	11	258	44	0	22	183	31	0	765
8:15 AM	59	81	36	0	38	62	1	0	9	192	39	0	31	145	26	0	719
8:30 AM	59	68	42	0	24	47	4	0	19	222	21	0	20	154	24	0	704
8:45 AM	49	76	44	0	24	53	3	0	14	219	30	0	16	144	14	0	686
9:00 AM	34	58	22	0	25	40	6	0	16	235	41	0	21	151	18	0	667
9:15 AM	52	60	17	0	35	38	7	0	10	177	28	0	20	147	22	0	613
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	533	719	423	0	334	429	36	0	124	2524	316	1	240	1637	235	3	7554
APPROACH %'s :	31.82%	42.93%	25.25%	0.00%	41.80%	53.69%	4.51%	0.00%	4.18%	85.13%	10.66%	0.03%	11.35%	77.40%	11.11%	0.14%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	207	298	196	0	157	176	8	0	33	955	136	0	108	718	117	1	3110
PEAK HR FACTOR :	0.877	0.898	0.803	0.000	0.801	0.710	0.500	0.000	0.750	0.898	0.773	0.000	0.794	0.907	0.886	0.250	0.954
	0.913				0.828				0.898				0.933				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	0.5	1	0.5	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	40	51	25	0	35	41	5	0	11	145	41	1	23	174	19	0	611
11:15 AM	41	51	23	0	41	53	8	0	15	157	32	1	24	187	27	0	660
11:30 AM	41	47	19	0	27	50	8	0	19	137	33	0	21	175	19	0	596
11:45 AM	63	43	26	0	39	41	16	0	12	181	28	0	24	208	24	0	705
12:00 PM	38	40	21	0	42	53	3	0	18	166	36	3	36	182	24	0	662
12:15 PM	35	52	26	0	21	48	3	0	13	151	32	1	25	183	23	0	613
12:30 PM	43	62	22	0	34	52	6	0	10	166	33	2	18	214	24	0	686
12:45 PM	56	43	37	0	30	57	3	0	13	149	29	2	18	215	19	1	672
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	357	389	199	0	269	395	52	0	111	1252	264	10	189	1538	179	1	5205
APPROACH %'s :	37.78%	41.16%	21.06%	0.00%	37.57%	55.17%	7.26%	0.00%	6.78%	76.48%	16.13%	0.61%	9.91%	80.65%	9.39%	0.05%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	179	197	95	0	136	194	28	0	53	664	129	6	103	787	95	0	2666
PEAK HR FACTOR :	0.710	0.794	0.913	0.000	0.810	0.915	0.438	0.000	0.736	0.917	0.896	0.500	0.715	0.919	0.990	0.000	0.945
	0.892				0.913				0.955				0.962				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	0.5	1	0.5	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	61	55	24	0	28	58	3	0	11	145	30	0	21	222	28	1	687
3:15 PM	47	55	33	0	33	98	3	0	18	154	41	0	20	220	17	0	739
3:30 PM	41	55	23	0	35	80	10	0	13	130	52	1	40	294	32	1	807
3:45 PM	57	50	29	0	31	89	3	0	17	112	45	0	29	248	26	0	736
4:00 PM	62	51	31	0	18	93	8	0	20	197	63	0	34	265	33	0	875
4:15 PM	71	60	48	0	24	103	10	0	30	171	49	0	24	249	25	1	865
4:30 PM	41	59	36	0	26	82	8	0	17	215	47	1	41	252	24	0	849
4:45 PM	63	47	38	0	27	107	7	0	18	150	46	0	43	231	24	0	801
5:00 PM	53	60	34	0	23	104	2	0	18	249	66	2	42	282	21	0	956
5:15 PM	53	63	38	0	21	100	3	0	18	207	75	0	44	277	28	0	927
5:30 PM	63	53	34	0	38	98	1	0	15	225	66	2	36	291	26	0	948
5:45 PM	75	69	34	0	30	87	3	0	14	189	64	0	39	229	28	0	861
6:00 PM	50	52	30	0	30	90	1	0	14	242	64	1	30	237	24	0	865
6:15 PM	48	52	26	0	25	102	2	0	18	178	37	0	30	187	26	0	731
6:30 PM	49	34	19	0	19	65	8	0	11	140	26	0	29	198	22	0	620
6:45 PM	45	48	20	0	25	77	1	0	6	129	39	1	19	189	31	0	630
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	879	863	497	0	433	1433	73	0	258	2833	810	8	521	3871	415	3	12897
APPROACH %'s :	39.26%	38.54%	22.20%	0.00%	22.33%	73.90%	3.76%	0.00%	6.60%	72.47%	20.72%	0.20%	10.83%	80.48%	8.63%	0.06%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	244	245	140	0	112	389	9	0	65	870	271	4	161	1079	103	0	3692
PEAK HR FACTOR :	0.813	0.888	0.921	0.000	0.737	0.935	0.750	0.000	0.903	0.873	0.903	0.500	0.915	0.927	0.920	0.000	0.965
	0.883				0.931				0.903				0.951				

Prepared by National Data & Surveying Services

Stella Link Rd & Bellaire Blvd

Peak Hour Turning Movement Count

ID: 23-450085-004
City: Houston

Day: Tuesday
Date: 5/16/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	11:45 AM - 12:45 PM
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	6:30 AM - 09:30 AM
NOON	11:00 AM - 01:00 PM
PM	3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	3110	2666	3692
PHF	0.95	0.95	0.97

SOUTHBOUND — Stella Link Rd

	Left	Thru	Right	U-Turn	Total	
AM	8	176	157	0	448	AM
NOON	28	194	136	0	345	NOON
PM	9	389	112	0	413	PM
	0.5	1	0.5	0		

EASTBOUND — Bellaire Blvd

AM	NOON	PM	
933	1000	1336	
0	6	4	0
33	53	65	1
955	664	870	3
136	129	271	0

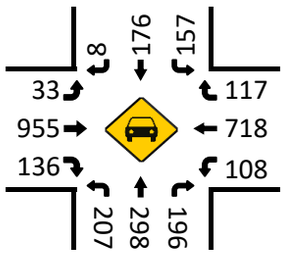
WESTBOUND — Bellaire Blvd

PM	NOON	AM	
103	95	117	0
1079	787	718	3
161	103	108	1
0	0	1	0
1122	895	1309	

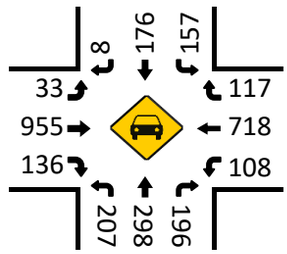
NORTHBOUND — Stella Link Rd

	Left	Thru	Right	U-Turn	Total	
PM	821	0	244	245	140	PM
NOON	426	0	179	197	95	NOON
AM	420	0	207	298	196	AM
		0	1	1	1	

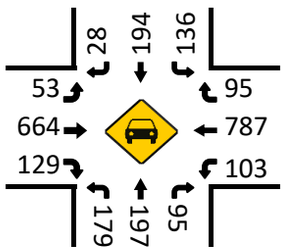
Totals (AM)



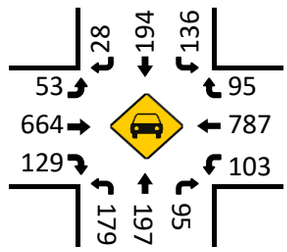
Totals (AM)



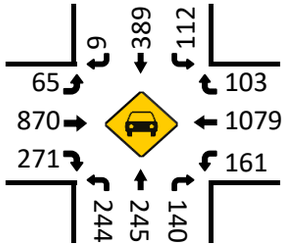
Totals (NOON)



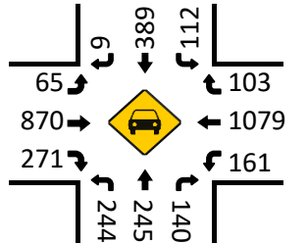
Totals (NOON)



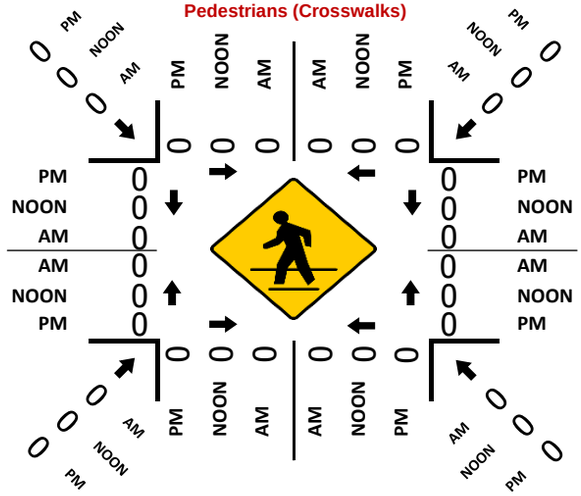
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)

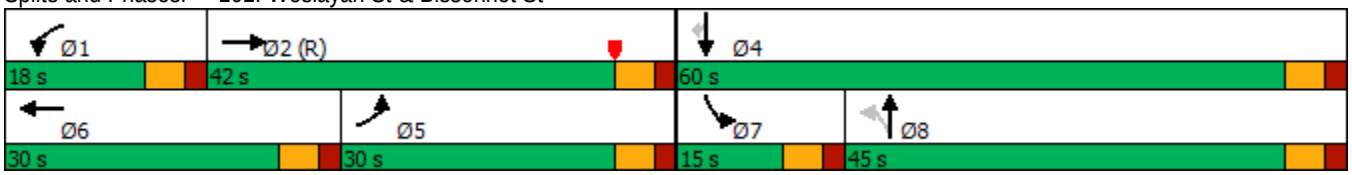


B. SYNCHRO OUTPUT

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	271	725	44	430	21	460	64	432	220
Future Volume (vph)	271	725	44	430	21	460	64	432	220
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.6	21.7	21.7
Total Split (s)	30.0	42.0	18.0	30.0	45.0	45.0	15.0	60.0	60.0
Total Split (%)	25.0%	35.0%	15.0%	25.0%	37.5%	37.5%	12.5%	50.0%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.6	5.7	5.7
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	Max	None	None	None	None	None
Act Effct Green (s)	24.5	57.3	7.8	38.5		28.7	8.1	40.3	40.3
Actuated g/C Ratio	0.20	0.48	0.06	0.32		0.24	0.07	0.34	0.34
v/c Ratio	0.83	0.50	0.42	0.46		0.81	0.59	0.76	0.35
Control Delay	65.4	25.4	64.3	35.4		51.0	73.7	43.1	4.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	65.4	25.4	64.3	35.4		51.0	73.7	43.1	4.3
LOS	E	C	E	D		D	E	D	A
Approach Delay		36.0		37.8		51.0		33.9	
Approach LOS		D		D		D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Weslayan St & Bissonnet St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	26	18	42	3	536	28	399
Future Volume (vph)	4	26	18	42	3	536	28	399
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	24.0	24.0	24.0	24.0	64.0	64.0	64.0	64.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	72.7%	72.7%	72.7%	72.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.0		4.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		10.3		10.3		25.3		25.3
Actuated g/C Ratio		0.26		0.26		0.65		0.65
v/c Ratio		0.07		0.21		0.50		0.42
Control Delay		12.1		11.4		7.3		6.5
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		12.1		11.4		7.3		6.5
LOS		B		B		A		A
Approach Delay		12.1		11.4		7.3		6.5
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 88	
Actuated Cycle Length: 39	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 102: Weslayan St & Rice Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	49	44	44	5	519	41	347
Future Volume (vph)	5	49	44	44	5	519	41	347
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	24.0	24.0	24.0	24.0	64.0	64.0	64.0	64.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	72.7%	72.7%	72.7%	72.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.0		4.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		10.5		10.5		23.2		23.2
Actuated g/C Ratio		0.28		0.28		0.62		0.62
v/c Ratio		0.14		0.28		0.53		0.40
Control Delay		11.5		13.2		7.9		6.7
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		11.5		13.2		7.9		6.7
LOS		B		B		A		A
Approach Delay		11.5		13.3		7.9		6.7
Approach LOS		B		B		A		A

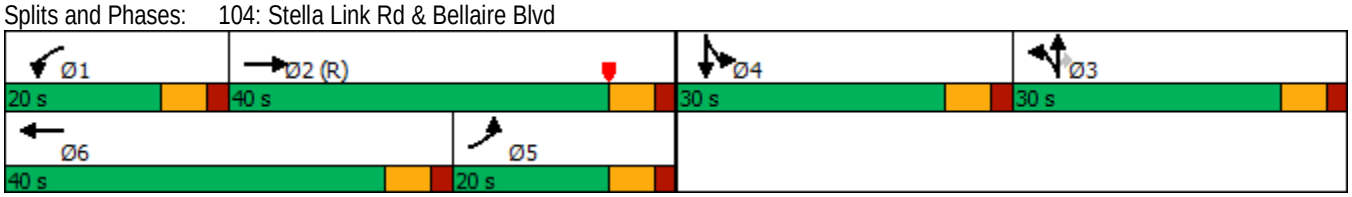
Intersection Summary	
Cycle Length: 88	
Actuated Cycle Length: 37.3	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: Weslayan St & University Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	33	955	109	718	207	298	196	176
Future Volume (vph)	33	955	109	718	207	298	196	176
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	9.0	26.0	9.0	26.0	9.0	9.0	9.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Max	Min	Max	None	None	None	Min
Act Effct Green (s)	14.0	41.3	12.0	39.4	24.8	24.8	24.8	17.8
Actuated g/C Ratio	0.12	0.34	0.10	0.33	0.21	0.21	0.21	0.15
v/c Ratio	0.17	0.66	0.65	0.53	0.60	0.82	0.42	0.70
Control Delay	50.1	36.5	68.7	34.3	50.0	62.5	8.0	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	36.5	68.7	34.3	50.0	62.5	8.0	55.5
LOS	D	D	E	C	D	E	A	E
Approach Delay		36.9		38.2		43.6		55.5
Approach LOS		D		D		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

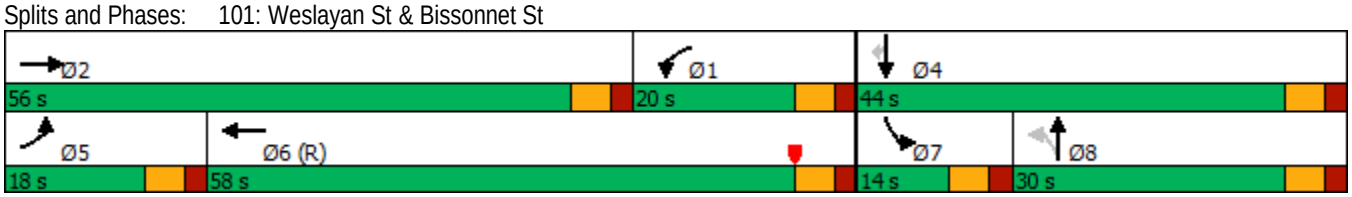
Splits and Phases: 104: Stella Link Rd & Bellaire Blvd

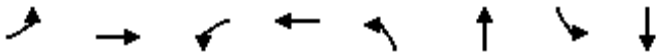


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	174	727	147	912	21	333	47	518	425
Future Volume (vph)	174	727	147	912	21	333	47	518	425
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.7	21.7	21.7
Total Split (s)	18.0	56.0	20.0	58.0	30.0	30.0	14.0	44.0	44.0
Total Split (%)	15.0%	46.7%	16.7%	48.3%	25.0%	25.0%	11.7%	36.7%	36.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.7	5.7	5.7
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	13.3	51.6	14.5	52.8		26.5	7.1	37.2	37.2
Actuated g/C Ratio	0.11	0.43	0.12	0.44		0.22	0.06	0.31	0.31
v/c Ratio	0.93	0.53	0.73	0.68		0.75	0.47	0.95	0.66
Control Delay	102.9	26.9	71.0	29.4		52.5	68.7	66.9	18.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	102.9	26.9	71.0	29.4		52.5	68.7	66.9	18.0
LOS	F	C	E	C		D	E	E	B
Approach Delay		41.0		34.7		52.5		46.0	
Approach LOS		D		C		D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 41.7	Intersection LOS: D
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Weslayan St & Bissonnet St





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	20	32	42	7	429	25	632
Future Volume (vph)	4	20	32	42	7	429	25	632
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	24.0	24.0	24.0	24.0	64.0	64.0	64.0	64.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	72.7%	72.7%	72.7%	72.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.0		4.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		10.9		10.9		30.3		30.3
Actuated g/C Ratio		0.25		0.25		0.69		0.69
v/c Ratio		0.08		0.27		0.40		0.59
Control Delay		14.2		16.4		5.8		8.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		14.2		16.4		5.8		8.1
LOS		B		B		A		A
Approach Delay		14.2		16.4		5.8		8.1
Approach LOS		B		B		A		A

Intersection Summary			
Cycle Length: 88			
Actuated Cycle Length: 44.2			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 65.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 102: Weslayan St & Rice Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	62	60	60	6	419	34	616
Future Volume (vph)	6	62	60	60	6	419	34	616
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	18.0	18.0	18.0	18.0
Total Split (s)	24.0	24.0	24.0	24.0	64.0	64.0	64.0	64.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	72.7%	72.7%	72.7%	72.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.0		4.0		4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		11.7		11.7		28.0		28.0
Actuated g/C Ratio		0.24		0.24		0.58		0.58
v/c Ratio		0.18		0.45		0.47		0.67
Control Delay		16.6		19.2		7.3		10.7
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		16.6		19.2		7.3		10.7
LOS		B		B		A		B
Approach Delay		16.6		19.2		7.3		10.7
Approach LOS		B		B		A		B

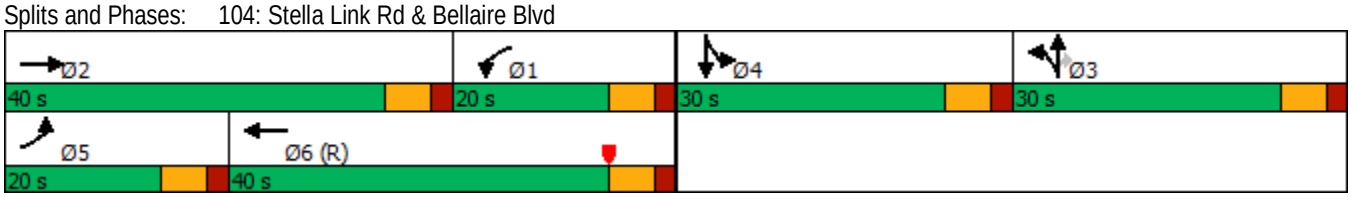
Intersection Summary			
Cycle Length: 88			
Actuated Cycle Length: 48.1			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 75.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 103: Weslayan St & University Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	69	870	161	1079	244	245	140	389
Future Volume (vph)	69	870	161	1079	244	245	140	389
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	9.0	26.0	9.0	26.0	9.0	9.0	9.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Max	Min	C-Max	None	None	None	Min
Act Effct Green (s)	10.1	38.3	14.0	42.2	21.4	21.4	21.4	22.3
Actuated g/C Ratio	0.08	0.32	0.12	0.35	0.18	0.18	0.18	0.19
v/c Ratio	0.48	0.73	0.81	0.69	0.80	0.76	0.33	0.81
Control Delay	62.2	38.3	79.9	36.9	65.7	61.8	4.0	57.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	38.3	79.9	36.9	65.7	61.8	4.0	57.3
LOS	E	D	E	D	E	E	A	E
Approach Delay		39.7		42.1		50.5		57.3
Approach LOS		D		D		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 44.8	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

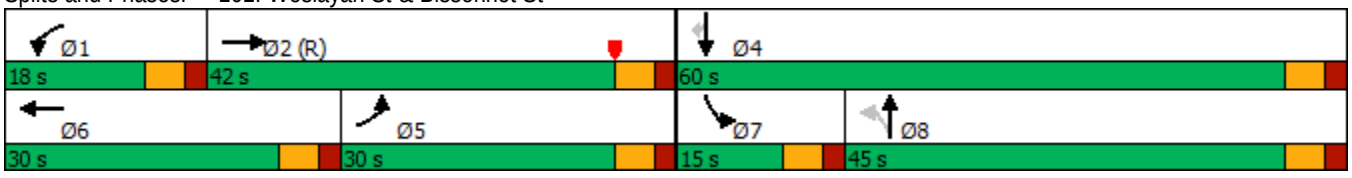
Splits and Phases: 104: Stella Link Rd & Bellaire Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	271	725	44	430	21	460	64	432	220
Future Volume (vph)	271	725	44	430	21	460	64	432	220
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.6	21.7	21.7
Total Split (s)	30.0	42.0	18.0	30.0	45.0	45.0	15.0	60.0	60.0
Total Split (%)	25.0%	35.0%	15.0%	25.0%	37.5%	37.5%	12.5%	50.0%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.6	5.7	5.7
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	Max	None	None	None	None	None
Act Effct Green (s)	24.5	57.3	7.8	38.5		28.7	8.1	40.3	40.3
Actuated g/C Ratio	0.20	0.48	0.06	0.32		0.24	0.07	0.34	0.34
v/c Ratio	0.83	0.50	0.42	0.46		0.81	0.59	0.76	0.35
Control Delay	65.4	25.4	64.3	35.4		34.5	73.7	43.1	4.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	65.4	25.4	64.3	35.4		34.5	73.7	43.1	4.3
LOS	E	C	E	D		C	E	D	A
Approach Delay		36.0		37.8		34.5		33.9	
Approach LOS		D		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Weslayan St & Bissonnet St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	26	18	42	3	536	28	399
Future Volume (vph)	4	26	18	42	3	536	28	399
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	12.0	12.0	12.0	12.0
Minimum Split (s)	13.3	13.3	19.3	19.3	19.6	19.6	19.6	19.6
Total Split (s)	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.2
All-Red Time (s)	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.3		5.3		5.6		5.6
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	C-Max	C-Max
Act Effct Green (s)		8.8		8.8		44.0		44.0
Actuated g/C Ratio		0.15		0.15		0.73		0.73
v/c Ratio		0.13		0.36		0.44		0.37
Control Delay		22.0		20.8		5.1		2.2
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		22.0		20.8		5.1		2.2
LOS		C		C		A		A
Approach Delay		22.0		20.8		5.1		2.2
Approach LOS		C		C		A		A

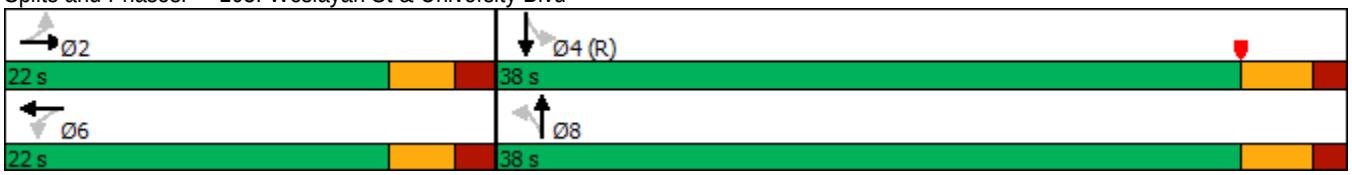
Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 9 (15%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 102: Weslayan St & Rice Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	49	44	44	5	519	41	347
Future Volume (vph)	5	49	44	44	5	519	41	347
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	12.0	12.0	12.0	12.0
Minimum Split (s)	21.9	21.9	18.9	18.9	21.8	21.8	19.8	19.8
Total Split (s)	22.0	22.0	22.0	22.0	38.0	38.0	38.0	38.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	63.3%	63.3%	63.3%	63.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.2
All-Red Time (s)	1.9	1.9	1.9	1.9	1.6	1.6	1.6	1.6
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.9		4.9		4.8		4.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	None	None	Max	Max	C-Max	C-Max
Act Effct Green (s)		17.1		17.1		33.2		33.2
Actuated g/C Ratio		0.28		0.28		0.55		0.55
v/c Ratio		0.14		0.27		0.59		0.45
Control Delay		14.3		15.0		8.5		12.7
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		14.3		15.0		8.5		12.7
LOS		B		B		A		B
Approach Delay		14.3		15.0		8.5		12.7
Approach LOS		B		B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 37 (62%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

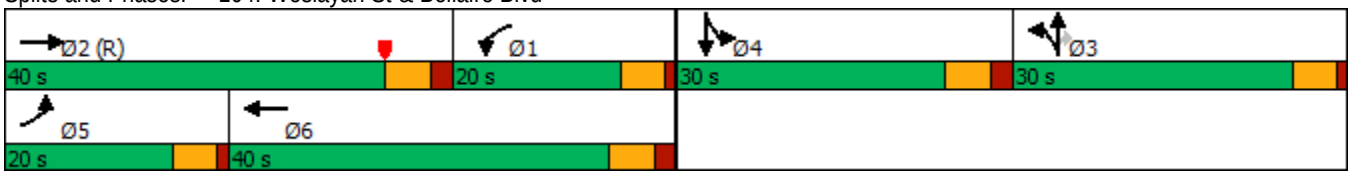
Splits and Phases: 103: Weslayan St & University Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	33	955	109	718	207	298	196	176
Future Volume (vph)	33	955	109	718	207	298	196	176
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	8.0	26.0	8.0	26.0	8.0	8.0	8.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	5.0	5.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Max	Min	Max	None	None	None	Min
Act Effct Green (s)	7.9	40.2	15.0	47.3	25.0	25.0	25.0	17.8
Actuated g/C Ratio	0.07	0.34	0.12	0.39	0.21	0.21	0.21	0.15
v/c Ratio	0.30	0.68	0.52	0.44	0.59	0.81	0.42	0.70
Control Delay	59.4	37.3	58.3	28.1	49.5	61.8	7.9	61.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	37.3	58.3	28.1	49.5	61.8	7.9	61.9
LOS	E	D	E	C	D	E	A	E
Approach Delay		38.0		31.6		43.1		61.9
Approach LOS		D		C		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 39.8	Intersection LOS: D
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

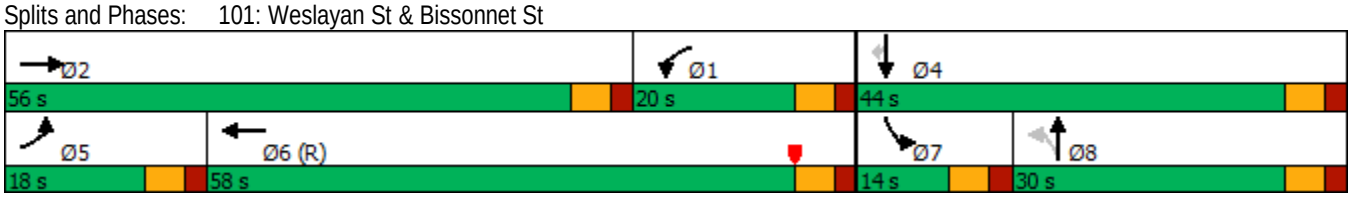
Splits and Phases: 104: Weslayan St & Bellaire Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	174	727	147	912	21	333	47	518	425
Future Volume (vph)	174	727	147	912	21	333	47	518	425
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.7	21.7	21.7
Total Split (s)	18.0	56.0	20.0	58.0	30.0	30.0	14.0	44.0	44.0
Total Split (%)	15.0%	46.7%	16.7%	48.3%	25.0%	25.0%	11.7%	36.7%	36.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.7	5.7	5.7
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	13.3	51.6	14.5	52.8		26.5	7.1	37.2	37.2
Actuated g/C Ratio	0.11	0.43	0.12	0.44		0.22	0.06	0.31	0.31
v/c Ratio	0.93	0.53	0.73	0.68		0.75	0.47	0.95	0.66
Control Delay	102.9	26.9	71.0	29.4		63.2	68.7	66.9	18.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	102.9	26.9	71.0	29.4		63.2	68.7	66.9	18.0
LOS	F	C	E	C		E	E	E	B
Approach Delay		41.0		34.7		63.2		46.0	
Approach LOS		D		C		E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Weslayan St & Bissonnet St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	20	32	42	7	429	25	632
Future Volume (vph)	4	20	32	42	7	429	25	632
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	12.0	12.0	12.0	12.0
Minimum Split (s)	13.3	13.3	19.3	19.3	19.6	19.6	19.6	19.6
Total Split (s)	25.0	25.0	25.0	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.2
All-Red Time (s)	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.3		5.3		5.6		5.6
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	C-Max	C-Max
Act Effct Green (s)		12.9		12.9		96.2		96.2
Actuated g/C Ratio		0.11		0.11		0.80		0.80
v/c Ratio		0.17		0.62		0.35		0.51
Control Delay		40.8		59.2		1.0		1.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		40.8		59.2		1.0		1.9
LOS		D		E		A		A
Approach Delay		40.8		59.2		1.0		1.9
Approach LOS		D		E		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 42 (35%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 102: Weslayan St & Rice Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	62	60	60	6	419	34	616
Future Volume (vph)	6	62	60	60	6	419	34	616
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	12.0	12.0	12.0	12.0
Minimum Split (s)	21.9	21.9	18.9	18.9	20.8	20.8	18.8	18.8
Total Split (s)	32.0	32.0	32.0	32.0	88.0	88.0	88.0	88.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	73.3%	73.3%	73.3%	73.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.2
All-Red Time (s)	1.9	1.9	1.9	1.9	1.6	1.6	1.6	1.6
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.9		4.9		4.8		4.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	C-Max	C-Max
Act Effct Green (s)		17.9		17.9		92.4		92.4
Actuated g/C Ratio		0.15		0.15		0.77		0.77
v/c Ratio		0.29		0.76		0.36		0.51
Control Delay		44.6		64.5		15.2		2.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		44.6		64.5		15.2		2.1
LOS		D		E		B		A
Approach Delay		44.6		64.5		15.2		2.1
Approach LOS		D		E		B		A

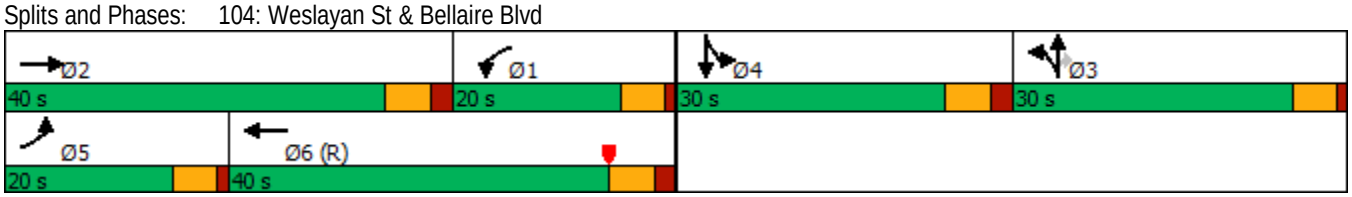
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41.2 (34%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Weslayan St & University Blvd

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	69	870	161	1079	244	245	140	389
Future Volume (vph)	69	870	161	1079	244	245	140	389
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	8.0	26.0	8.0	26.0	8.0	8.0	8.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	5.0	5.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Max	Min	C-Max	None	None	None	Min
Act Effct Green (s)	10.2	39.1	15.0	44.0	21.8	21.8	21.8	22.1
Actuated g/C Ratio	0.08	0.33	0.12	0.37	0.18	0.18	0.18	0.18
v/c Ratio	0.48	0.72	0.75	0.66	0.79	0.75	0.33	0.82
Control Delay	62.1	37.5	72.2	35.1	64.1	60.4	4.5	49.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	37.5	72.2	35.1	64.1	60.4	4.5	49.9
LOS	E	D	E	D	E	E	A	D
Approach Delay		38.9		39.6		49.4		49.9
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 42.4	Intersection LOS: D
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

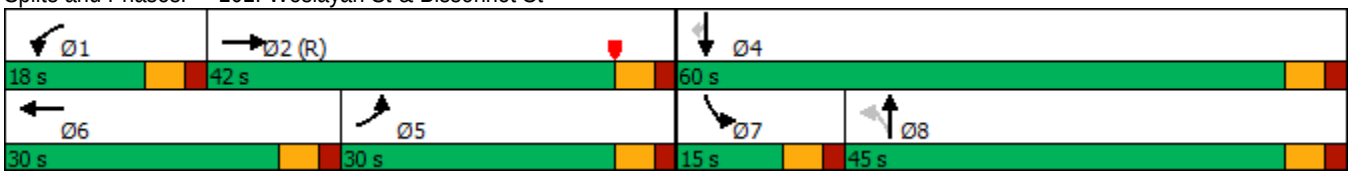
Splits and Phases: 104: Weslayan St & Bellaire Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	271	725	44	430	21	460	64	432	220
Future Volume (vph)	271	725	44	430	21	460	64	432	220
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.6	21.7	21.7
Total Split (s)	30.0	42.0	18.0	30.0	45.0	45.0	15.0	60.0	60.0
Total Split (%)	25.0%	35.0%	15.0%	25.0%	37.5%	37.5%	12.5%	50.0%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.6	5.7	5.7
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	None	Max	None	None	None	None	None
Act Effct Green (s)	24.5	57.3	7.8	38.5		28.7	8.1	40.3	40.3
Actuated g/C Ratio	0.20	0.48	0.06	0.32		0.24	0.07	0.34	0.34
v/c Ratio	0.83	0.50	0.42	0.46		0.81	0.59	0.76	0.35
Control Delay	65.4	25.4	64.3	35.4		31.1	73.7	43.1	4.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	65.4	25.4	64.3	35.4		31.1	73.7	43.1	4.3
LOS	E	C	E	D		C	E	D	A
Approach Delay		36.0		37.8		31.1		33.9	
Approach LOS		D		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

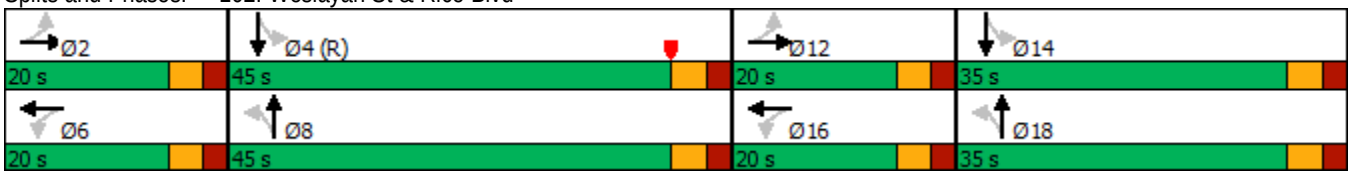
Splits and Phases: 101: Weslayan St & Bissonnet St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2	Ø4	Ø6	Ø8
Lane Configurations												
Traffic Volume (vph)	4	26	18	42	3	536	28	399				
Future Volume (vph)	4	26	18	42	3	536	28	399				
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA				
Protected Phases		2 12		6 16		8 18		4 14	2	4	6	8
Permitted Phases	2 12		6 16		8 18		4 14					
Detector Phase	2 12	2 12	6 16	6 16	8 18	8 18	4 14	4 14				
Switch Phase												
Minimum Initial (s)									8.0	12.0	8.0	12.0
Minimum Split (s)									13.3	19.6	19.3	19.6
Total Split (s)									20.0	45.0	20.0	45.0
Total Split (%)									17%	38%	17%	38%
Yellow Time (s)									3.0	3.2	3.0	3.2
All-Red Time (s)									2.3	2.4	2.3	2.4
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode									None	C-Max	None	Max
Act Effct Green (s)		17.3		17.3		80.9		80.9				
Actuated g/C Ratio		0.14		0.14		0.67		0.67				
v/c Ratio		0.13		0.38		0.48		0.41				
Control Delay		22.4		23.1		12.3		2.5				
Queue Delay		0.0		0.0		0.0		0.0				
Total Delay		22.4		23.1		12.3		2.5				
LOS		C		C		B		A				
Approach Delay		22.4		23.1		12.3		2.5				
Approach LOS		C		C		B		A				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 70 (58%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 102: Weslayan St & Rice Blvd



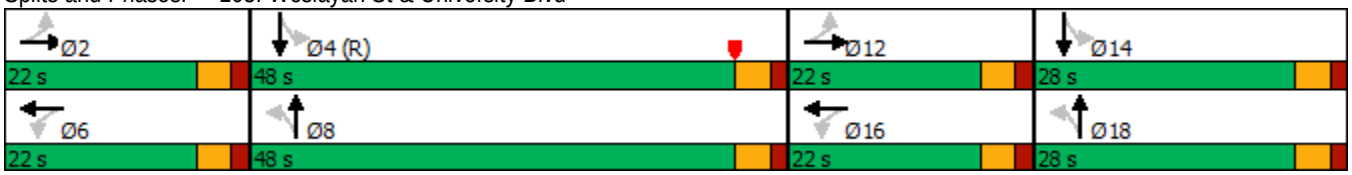
Lane Group	Ø12	Ø14	Ø16	Ø18
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	12	14	16	18
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	8.0	12.0	8.0	12.0
Minimum Split (s)	13.3	19.6	19.3	19.6
Total Split (s)	20.0	35.0	20.0	35.0
Total Split (%)	17%	29%	17%	29%
Yellow Time (s)	3.0	3.2	3.0	3.2
All-Red Time (s)	2.3	2.4	2.3	2.4
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	None	Max
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2	Ø4	Ø6	Ø8
Lane Configurations												
Traffic Volume (vph)	5	49	44	44	5	519	41	347				
Future Volume (vph)	5	49	44	44	5	519	41	347				
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA				
Protected Phases		2 12		6 16		8 18		4 14	2	4	6	8
Permitted Phases	2 12		6 16		8 18		4 14					
Detector Phase	2 12	2 12	6 16	6 16	8 18	8 18	4 14	4 14				
Switch Phase												
Minimum Initial (s)									8.0	12.0	8.0	12.0
Minimum Split (s)									21.9	18.8	20.9	20.8
Total Split (s)									22.0	48.0	22.0	48.0
Total Split (%)									18%	40%	18%	40%
Yellow Time (s)									3.0	3.2	3.0	3.2
All-Red Time (s)									1.9	1.6	1.9	1.6
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode									None	C-Max	None	Max
Act Effct Green (s)		19.3		19.3		81.3		81.3				
Actuated g/C Ratio		0.16		0.16		0.68		0.68				
v/c Ratio		0.25		0.47		0.48		0.38				
Control Delay		21.1		26.9		4.9		2.3				
Queue Delay		0.0		0.0		0.0		0.0				
Total Delay		21.1		26.9		4.9		2.3				
LOS		C		C		A		A				
Approach Delay		21.1		26.9		4.9		2.3				
Approach LOS		C		C		A		A				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: Weslayan St & University Blvd



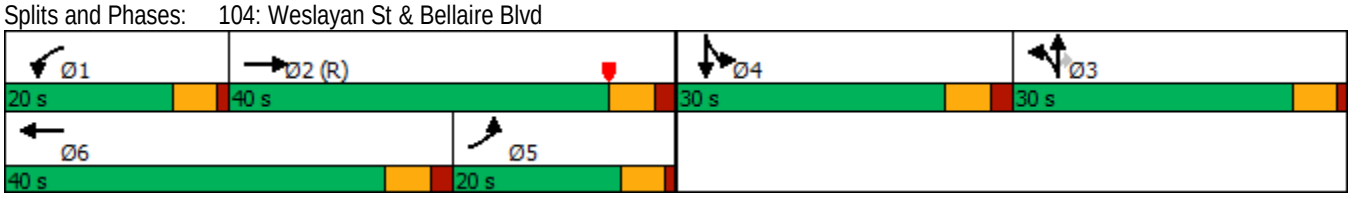
Lane Group	Ø12	Ø14	Ø16	Ø18
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	12	14	16	18
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	8.0	12.0	8.0	12.0
Minimum Split (s)	21.9	18.8	20.9	20.8
Total Split (s)	22.0	28.0	22.0	28.0
Total Split (%)	18%	23%	18%	23%
Yellow Time (s)	3.0	3.2	3.0	3.2
All-Red Time (s)	1.9	1.6	1.9	1.6
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	None	Max
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	33	955	109	718	207	298	196	176
Future Volume (vph)	33	955	109	718	207	298	196	176
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	8.0	26.0	8.0	26.0	8.0	8.0	8.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	5.0	5.0	6.0
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	C-Max	Min	Max	None	None	None	Min
Act Effct Green (s)	15.0	42.8	12.4	40.2	25.0	25.0	25.0	17.8
Actuated g/C Ratio	0.12	0.36	0.10	0.34	0.21	0.21	0.21	0.15
v/c Ratio	0.16	0.64	0.63	0.52	0.59	0.81	0.42	0.70
Control Delay	48.9	35.3	66.4	33.6	49.5	61.8	7.9	54.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	35.3	66.4	33.6	49.5	61.8	7.9	54.7
LOS	D	D	E	C	D	E	A	D
Approach Delay		35.7		37.4		43.1		54.7
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

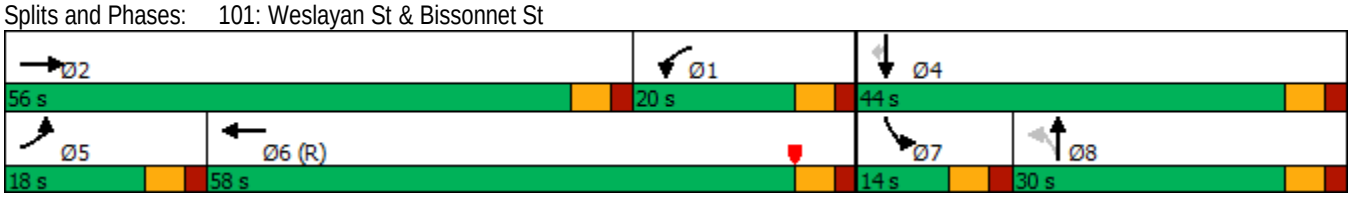
Splits and Phases: 104: Weslayan St & Bellaire Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	174	727	147	912	21	333	47	518	425
Future Volume (vph)	174	727	147	912	21	333	47	518	425
Turn Type	Prot	NA	Prot	NA	Perm	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		8	7	4	
Permitted Phases					8				4
Detector Phase	5	2	1	6	8	8	7	4	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.5	18.5	10.5	23.5	22.7	22.7	10.7	21.7	21.7
Total Split (s)	18.0	56.0	20.0	58.0	30.0	30.0	14.0	44.0	44.0
Total Split (%)	15.0%	46.7%	16.7%	48.3%	25.0%	25.0%	11.7%	36.7%	36.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.7	5.7	5.7	5.7
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	13.3	51.6	14.5	52.8		26.5	7.1	37.2	37.2
Actuated g/C Ratio	0.11	0.43	0.12	0.44		0.22	0.06	0.31	0.31
v/c Ratio	0.93	0.53	0.73	0.68		0.75	0.47	0.95	0.66
Control Delay	102.9	26.9	71.0	29.4		62.1	68.7	66.9	18.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	102.9	26.9	71.0	29.4		62.1	68.7	66.9	18.0
LOS	F	C	E	C		E	E	E	B
Approach Delay		41.0		34.7		62.1		46.0	
Approach LOS		D		C		E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 42.8	Intersection LOS: D
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

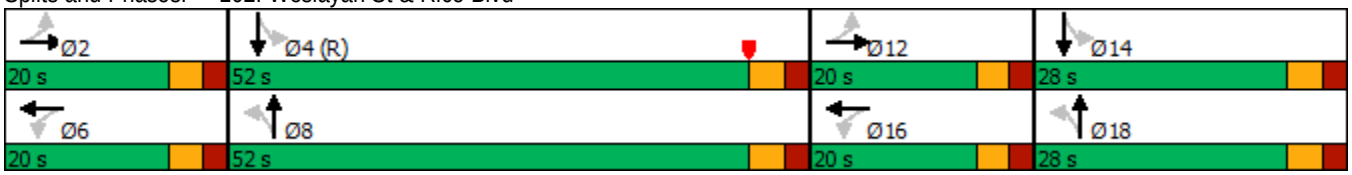
Splits and Phases: 101: Weslayan St & Bissonnet St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2	Ø4	Ø6	Ø8
Lane Configurations												
Traffic Volume (vph)	4	20	32	42	7	429	25	632				
Future Volume (vph)	4	20	32	42	7	429	25	632				
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA				
Protected Phases		2 12		6 16		8 18		4 14	2	4	6	8
Permitted Phases	2 12		6 16		8 18		4 14					
Detector Phase	2 12	2 12	6 16	6 16	8 18	8 18	4 14	4 14				
Switch Phase												
Minimum Initial (s)									8.0	12.0	8.0	12.0
Minimum Split (s)									13.3	19.6	19.3	19.6
Total Split (s)									20.0	52.0	20.0	52.0
Total Split (%)									17%	43%	17%	43%
Yellow Time (s)									3.0	3.2	3.0	3.2
All-Red Time (s)									2.3	2.4	2.3	2.4
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode									None	C-Max	None	Max
Act Effct Green (s)		18.4		18.4		79.8		79.8				
Actuated g/C Ratio		0.15		0.15		0.66		0.66				
v/c Ratio		0.12		0.44		0.42		0.61				
Control Delay		19.9		26.6		6.5		4.6				
Queue Delay		0.0		0.0		0.0		0.0				
Total Delay		19.9		26.6		6.5		4.6				
LOS		B		C		A		A				
Approach Delay		19.9		26.6		6.5		4.6				
Approach LOS		B		C		A		A				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 102: Weslayan St & Rice Blvd



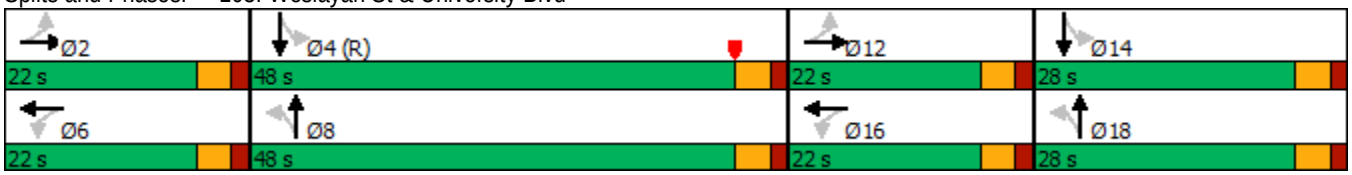
Lane Group	Ø12	Ø14	Ø16	Ø18
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	12	14	16	18
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	8.0	12.0	8.0	12.0
Minimum Split (s)	13.3	19.6	19.3	19.6
Total Split (s)	20.0	28.0	20.0	28.0
Total Split (%)	17%	23%	17%	23%
Yellow Time (s)	3.0	3.2	3.0	3.2
All-Red Time (s)	2.3	2.4	2.3	2.4
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	None	Max
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2	Ø4	Ø6	Ø8
Lane Configurations												
Traffic Volume (vph)	6	62	60	60	6	419	34	616				
Future Volume (vph)	6	62	60	60	6	419	34	616				
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA				
Protected Phases		2 12		6 16		8 18		4 14	2	4	6	8
Permitted Phases	2 12		6 16		8 18		4 14					
Detector Phase	2 12	2 12	6 16	6 16	8 18	8 18	4 14	4 14				
Switch Phase												
Minimum Initial (s)									8.0	12.0	8.0	12.0
Minimum Split (s)									21.9	18.8	20.9	20.8
Total Split (s)									22.0	48.0	22.0	48.0
Total Split (%)									18%	40%	18%	40%
Yellow Time (s)									3.0	3.2	3.0	3.2
All-Red Time (s)									1.9	1.6	1.9	1.6
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode									None	C-Max	None	Max
Act Effct Green (s)		22.6		22.6		78.0		78.0				
Actuated g/C Ratio		0.19		0.19		0.65		0.65				
v/c Ratio		0.23		0.59		0.42		0.61				
Control Delay		21.9		29.3		8.3		3.7				
Queue Delay		0.0		0.0		0.0		0.0				
Total Delay		21.9		29.3		8.3		3.7				
LOS		C		C		A		A				
Approach Delay		21.9		29.3		8.3		3.7				
Approach LOS		C		C		A		A				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 4:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Weslayan St & University Blvd



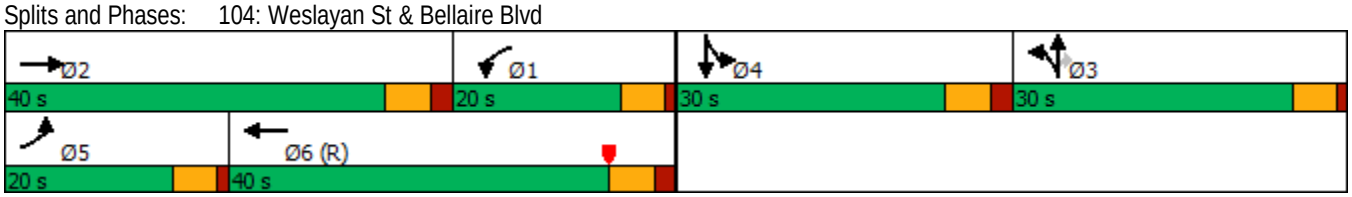
Lane Group	Ø12	Ø14	Ø16	Ø18
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	12	14	16	18
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	8.0	12.0	8.0	12.0
Minimum Split (s)	21.9	22.5	20.9	22.5
Total Split (s)	22.0	28.0	22.0	28.0
Total Split (%)	18%	23%	18%	23%
Yellow Time (s)	3.0	3.2	3.0	3.2
All-Red Time (s)	1.9	1.6	1.9	1.6
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Max	None	Max
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	69	870	161	1079	244	245	140	389
Future Volume (vph)	69	870	161	1079	244	245	140	389
Turn Type	Prot	NA	Prot	NA	Split	NA	Perm	NA
Protected Phases	5	2	1	6	3	3		4
Permitted Phases							3	
Detector Phase	5	2	1	6	3	3	3	4
Switch Phase								
Minimum Initial (s)	3.0	7.0	3.0	7.0	3.0	3.0	3.0	5.0
Minimum Split (s)	8.0	26.0	8.0	26.0	8.0	8.0	8.0	30.0
Total Split (s)	20.0	40.0	20.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	6.0	5.0	5.0	5.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Max	Min	C-Max	None	None	None	Min
Act Effct Green (s)	10.2	39.1	15.0	44.0	21.8	21.8	21.8	22.1
Actuated g/C Ratio	0.08	0.33	0.12	0.37	0.18	0.18	0.18	0.18
v/c Ratio	0.48	0.72	0.75	0.66	0.79	0.75	0.33	0.82
Control Delay	62.1	37.5	72.2	35.1	64.1	60.4	4.5	46.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	37.5	72.2	35.1	64.1	60.4	4.5	46.8
LOS	E	D	E	D	E	E	A	D
Approach Delay		38.9		39.6		49.4		46.8
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 42.0	Intersection LOS: D
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 104: Weslayan St & Bellaire Blvd



C. CLEARANCE INTERVAL CALCULATIONS

INT #	INTERSECTION	APPROACH	THRU Ø	LEFT Ø	SPEED (mph)	VEHICLE CROSSING (ft)	PEDESTRIAN CROSSING (ft)	CALCULATED		
								YELLOW CHANGE (s)	ALL RED CLEARANCE (s)	PEDESTRIAN CLEARANCE (s)
2	Weslayan St & Rice Blvd	EB	2	-	25	65	-	2.8	2.3	-
		WB	6	-	25	55	35	2.8	2	10.0
		NB	8	-	30	85	35	3.2	2.4	10.0
		SB	4	-	30	75	35	3.2	2.2	10.0

CLEARANCE SUMMARY BY PHASE								
Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Y	-	3.0	-	3.2	-	3.0	-	3.2
AR	-	2.3	-	2.4	-	2.3	-	2.4
Walk	-	-	-	7	-	7	-	7
FDW*	-	-	-	7	-	7	-	7

*Yellow time subtracted from calculated pedestrian clearance to determine Flashing Don't Walk time per MUTCD

INT #	INTERSECTION	APPROACH	THRU Ø	LEFT Ø	SPEED (mph)	VEHICLE CROSSING (ft)	PEDESTRIAN CROSSING (ft)	CALCULATED		
								YELLOW CHANGE (s)	ALL RED CLEARANCE (s)	PEDESTRIAN CLEARANCE (s)
3	Weslayan St & University Blvd	EB	2	-	25	50	45	2.8	1.9	12.9
		WB	6	-	25	50	35	2.8	1.9	10.0
		NB	8	-	30	50	40	3.2	1.6	11.4
		SB	4	-	30	50	35	3.2	1.6	10.0

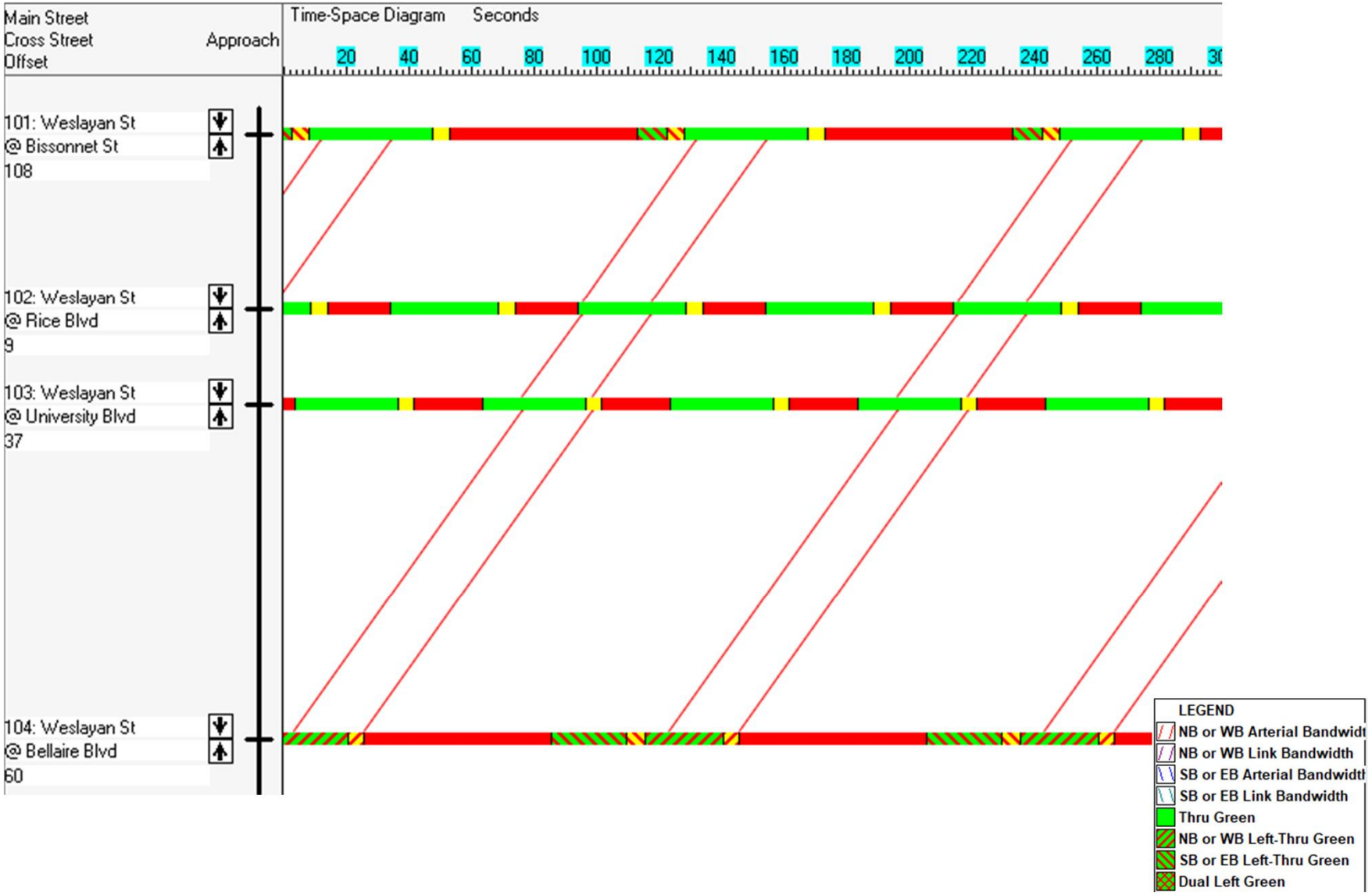
CLEARANCE SUMMARY BY PHASE								
Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Y	-	3.0	-	3.2	-	3.0	-	3.2
AR	-	1.9	-	1.6	-	1.9	-	1.6
Walk	-	7	-	7	-	7	-	7
FDW*	-	10	-	7	-	7	-	9

*Yellow time subtracted from calculated pedestrian clearance to determine Flashing Don't Walk time per MUTCD

D. TIME-SPACE DIAGRAMS

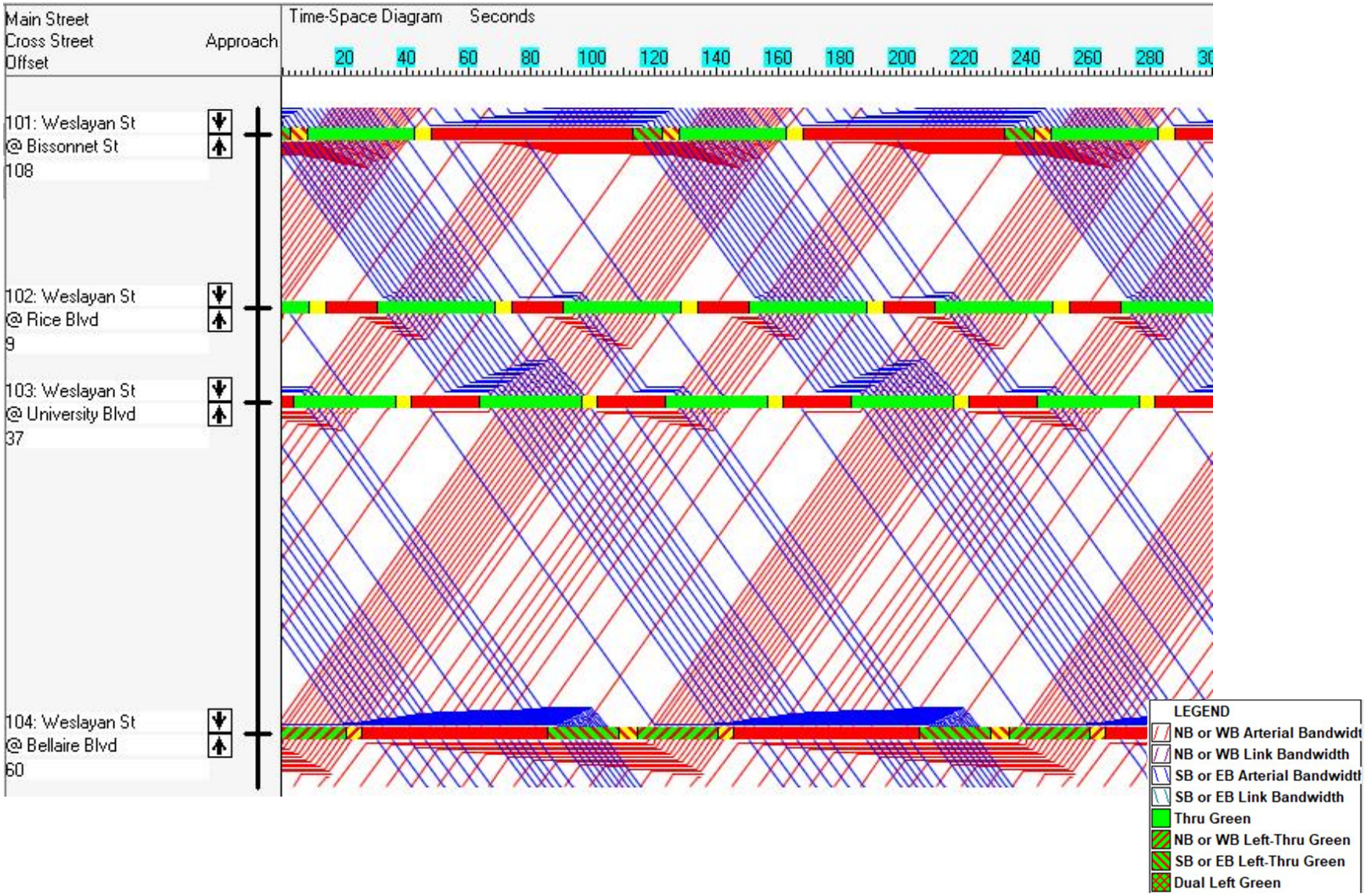
Scenario 1

AM Peak – Arterial Bands



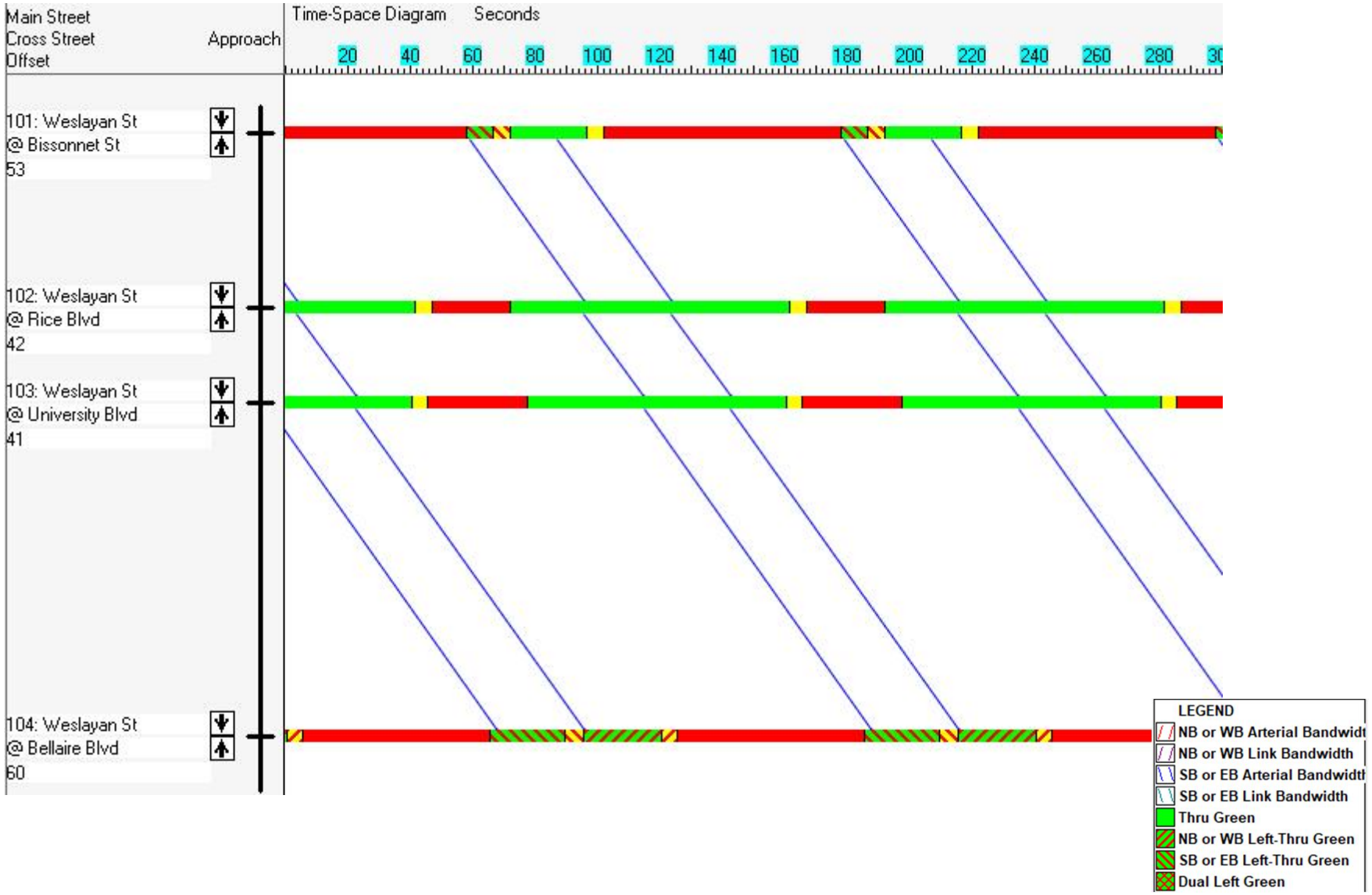
Scenario 1

AM Peak – Flows



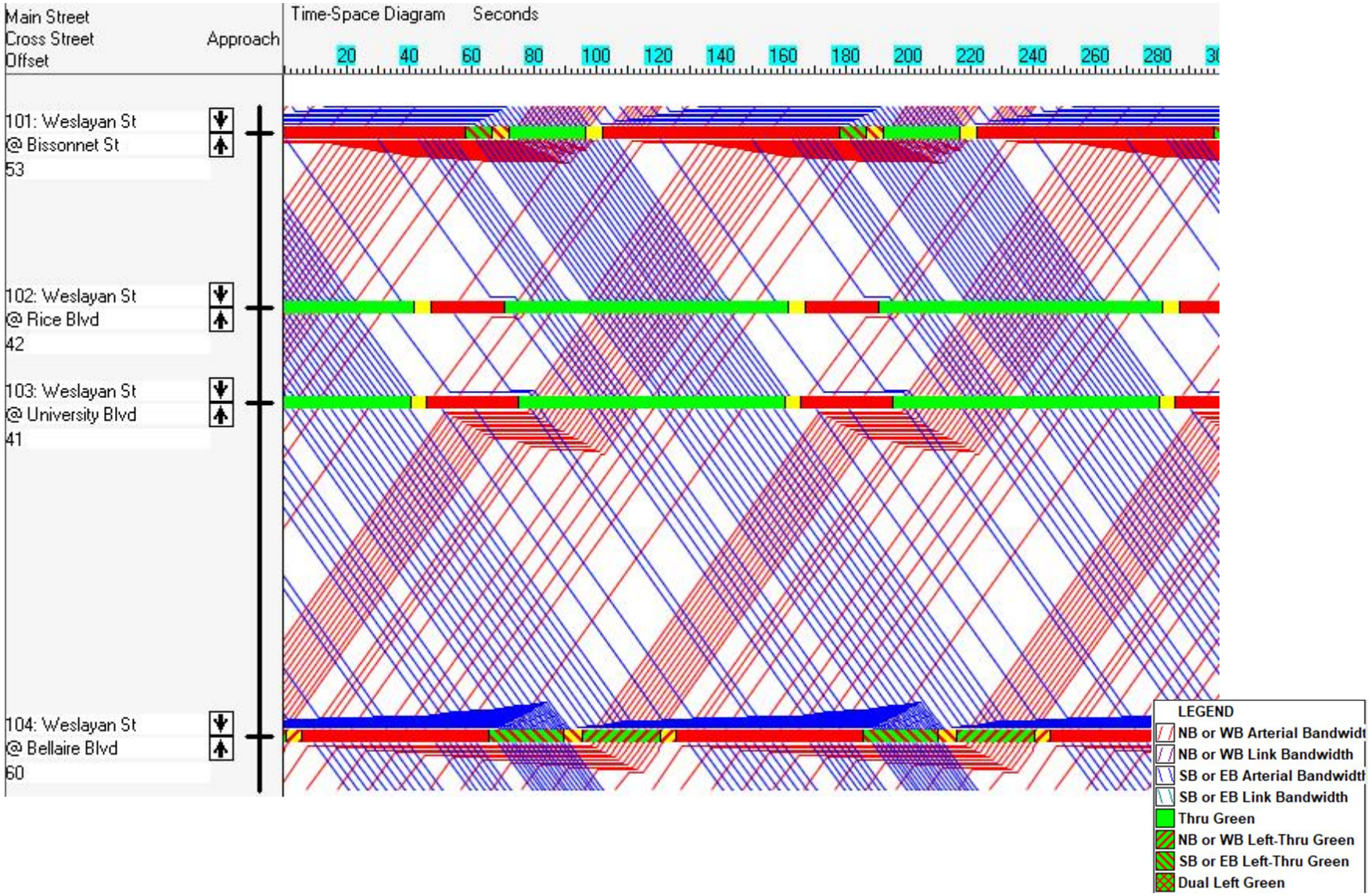
Scenario 1

PM Peak – Arterial Bands



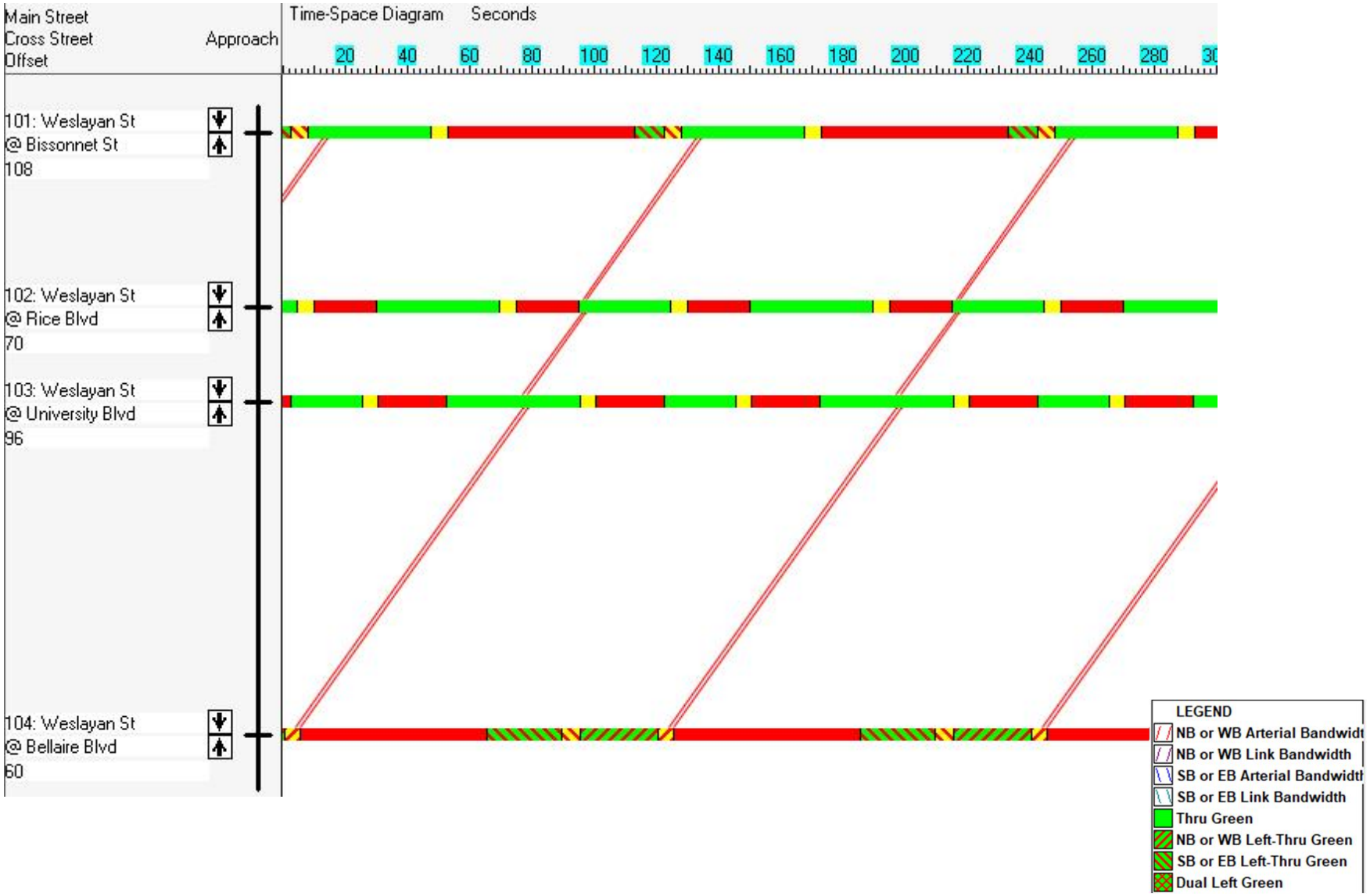
Scenario 1

PM Peak – Flows



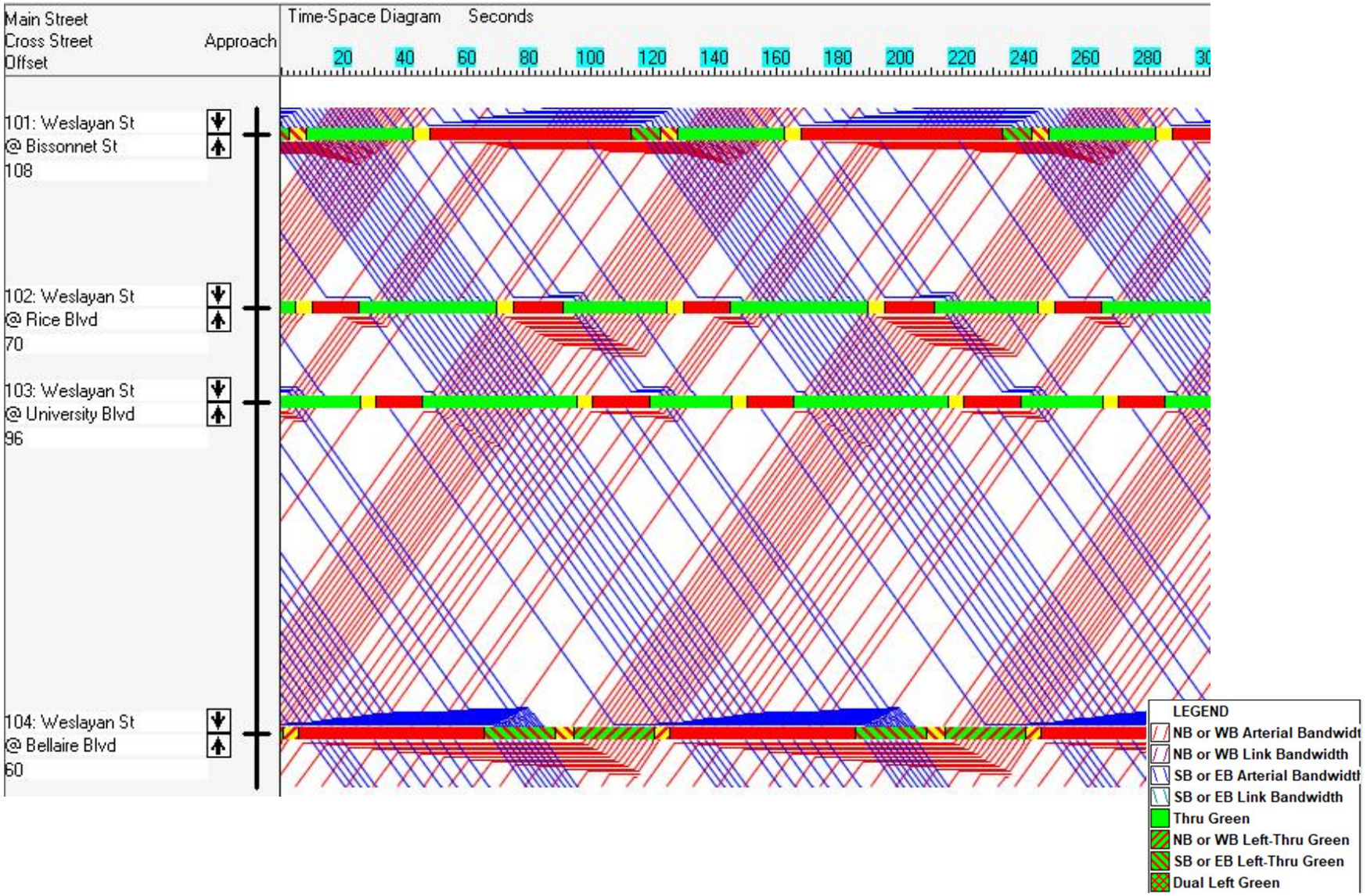
Scenario 2

AM Peak – Arterial Bands



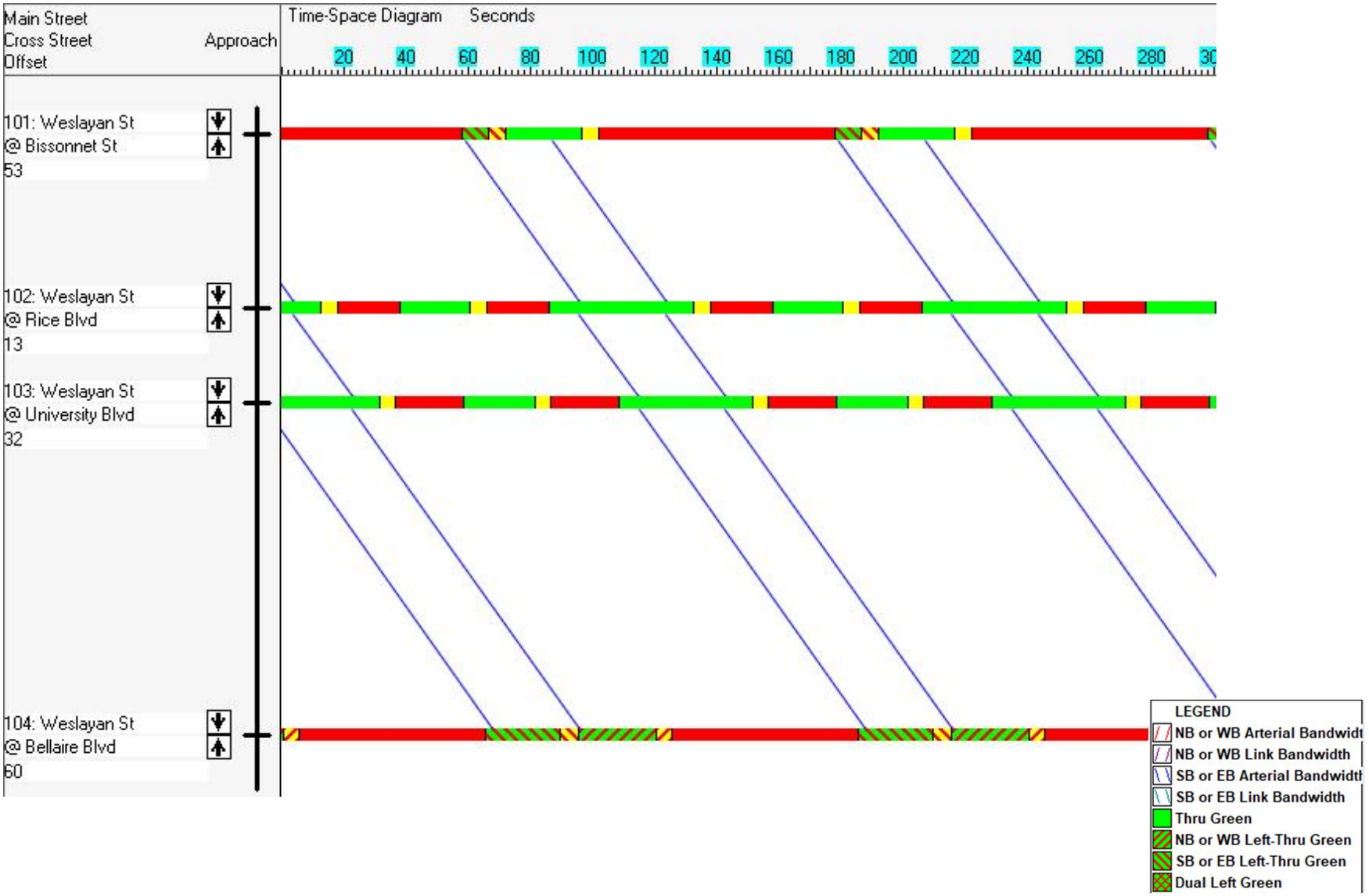
Scenario 2

AM Peak – Flows



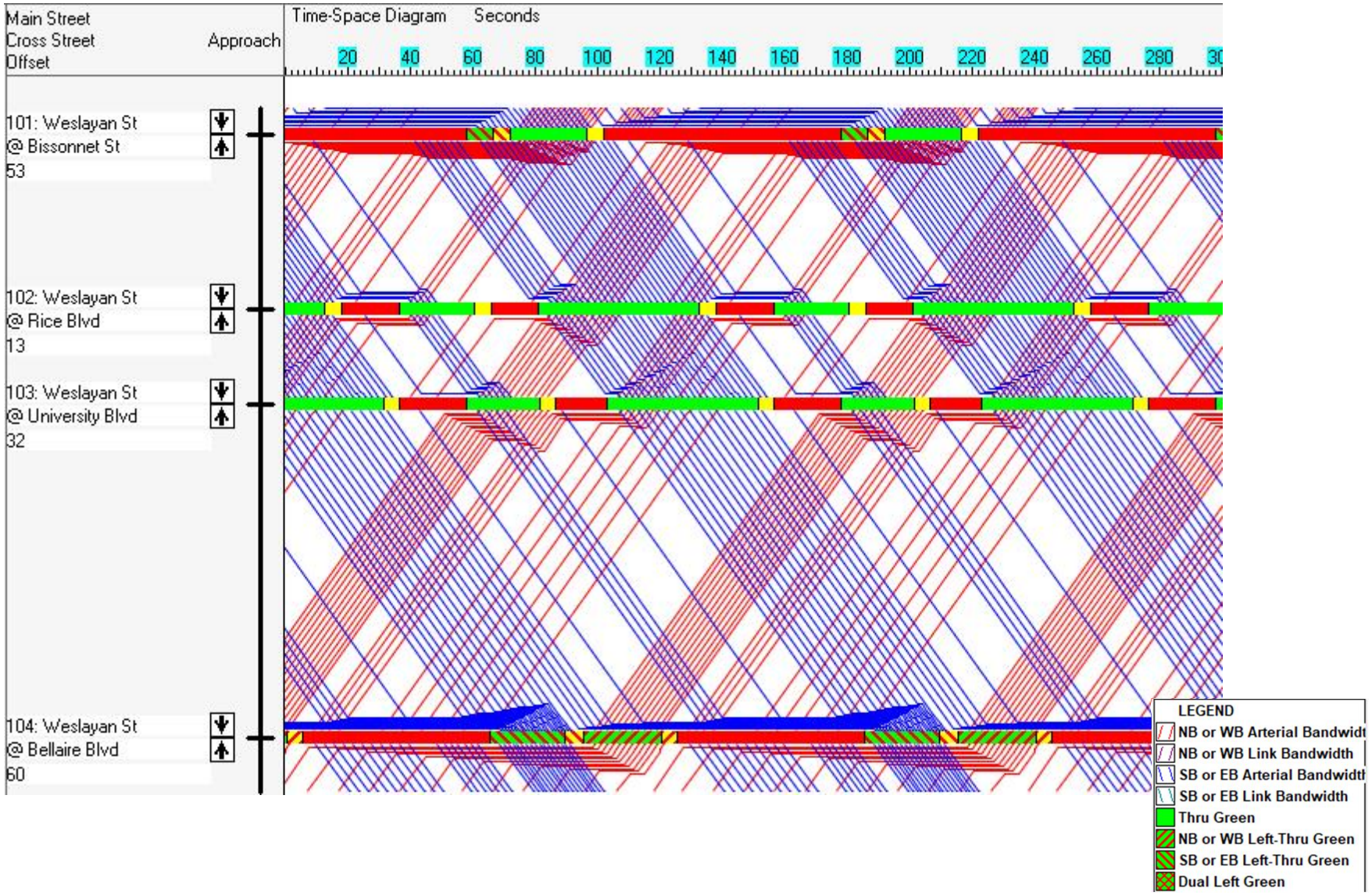
Scenario 2

PM Peak – Arterial Bands



Scenario 2

PM Peak – Flows



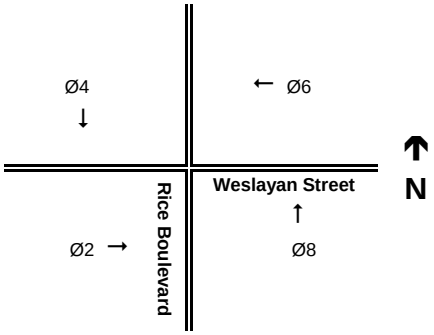
E. SUMMARY TIMING SHEETS

Kimley»Horn

Summary Timing Sheet and Phasing Diagram
For
Weslayan Street @ Rice Boulevard

NOTES

OMITTED PHASES:	Ø1, Ø3, Ø5, Ø7
COORDINATED PHASES:	N/A



PHASE TIMING PLAN

PHASE	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
MOVEMENT		EBT		SBT		WBT		NBT
MIN GREEN	-	8	-	12	-	8	-	12
PASSAGE	-	3.0	-	3.0	-	3.0	-	3.0
MAX 1	-	20	-	50	-	20	-	50
YELLOW CHANGE	-	3.0	-	3.2	-	3.0	-	3.2
RED CLEARANCE	-	2.3	-	2.4	-	2.3	-	2.4
WALK	-	-	-	7	-	7	-	7
PED CLEARANCE	-	-	-	7	-	7	-	7

COORDINATION TIMING DATA

				SPLIT TIMES							
PLAN	CYCLE	OFFSET	SEQ	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-		-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

TIME OF DAY (TOD) SCHEDULE:

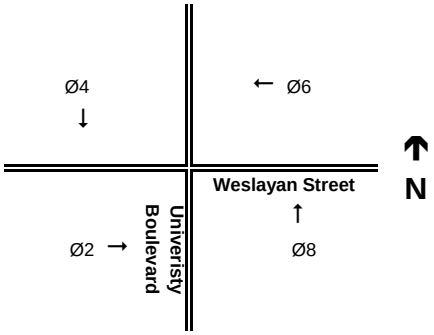
DAY	TIME	PLAN	DAY	TIME	PLAN
-	-	-	-	-	-

Kimley»Horn

Summary Timing Sheet and Phasing Diagram
For
Weslayan Street @ Univeristy Boulevard

NOTES

OMITTED PHASES:	Ø1, Ø3, Ø5, Ø7
COORDINATED PHASES:	N/A



PHASE TIMING PLAN

PHASE	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
MOVEMENT		EBT		SBT		WBT		NBT
MIN GREEN	-	8	-	12	-	8	-	12
PASSAGE	-	3.0	-	3.0	-	3.0	-	3.0
MAX 1	-	20	-	50	-	20	-	50
YELLOW CHANGE	-	3.0	-	3.2	-	3.0	-	3.2
RED CLEARANCE	-	1.9	-	1.6	-	1.9	-	1.6
WALK	-	7	-	7	-	7	-	7
PED CLEARANCE	-	10	-	7	-	7	-	9

COORDINATION TIMING DATA

				SPLIT TIMES							
PLAN	CYCLE	OFFSET	SEQ	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-		-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

TIME OF DAY (TOD) SCHEDULE:

DAY	TIME	PLAN	DAY	TIME	PLAN
-	-	-	-	-	-

F. STELLA LINK ROAD SOUTHBOUND LANE EXTENSION

Stella Link Road at Bellaire Boulevard
Alternate Geometry