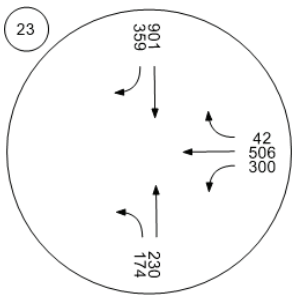
Planning 2 - Appendix 6
Traffic Operations Analysis Results

IH-10 Westbound Frontage Road at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	9.00	10.00	12.00	12.00	9.00	10.00	12.00	12.00	12.00	11.00	13.00	14.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			45.00		

volumes

Name	Yale St			Yale St			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Base Volume Input [veh/h]	174	230	0	0	901	359	0	0	0	300	506	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	174	230	0	0	901	359	0	0	0	300	506	42
Peak Hour Factor	0.9650	0.9650	1.0000	1.0000	0.9650	0.9650	1.0000	1.0000	1.0000	0.9650	0.9650	0.9650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	60	0	0	233	93	0	0	0	78	131	11
Total Analysis Volume [veh/h]	180	238	0	0	934	372	0	0	0	311	524	44

Lane Group Results

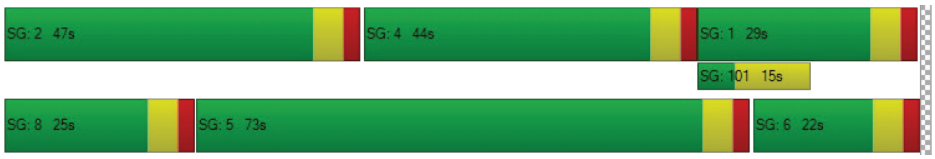
X, volume / capacity	0.38	0.24	1.02	1.12		0.53	0.49	0.49
d, Delay for Lane Group [s/veh]	22.28	12.69	78.94	113.88		35.66	34.75	34.88
Lane Group LOS	C	B	F	F		D	C	C
Critical Lane Group	Yes	Yes	No	No		Yes	No	No
50th-Percentile Queue Length [veh]	2.52	3.21	25.68	28.98		7.58	6.88	6.74
50th-Percentile Queue Length [ft]	63.00	80.13	641.92	724.57		189.55	171.88	168.46
95th-Percentile Queue Length [veh]	4.54	5.77	34.45	40.82		12.10	11.18	11.00
95th-Percentile Queue Length [ft]	113.40	144.23	861.24	1020.57		302.44	279.39	274.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.36	8.36	8.36	8.40	8.40	8.40	8.45	8.45	8.45	9.45	9.45	9.45
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
d_A, Approach Delay [s/veh]	8.36			8.40			8.45			9.45		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	8.78											
Intersection LOS	A											
Intersection V/C	0.159											

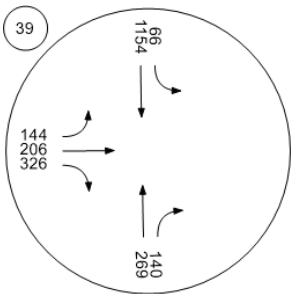
Sequence

Ring 1	2	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



IH-10 Eastbound Frontage Road at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	9.00	9.00	11.00	11.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			30.00		

volumes

Name	Yale St			Yale St			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Base Volume Input [veh/h]	0	269	140	66	1154	0	144	206	326	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	269	140	66	1154	0	144	206	326	0	0	0
Peak Hour Factor	1.0000	0.9720	0.9720	0.9720	0.9720	1.0000	0.9720	0.9720	0.9720	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	69	36	17	297	0	37	53	84	0	0	0
Total Analysis Volume [veh/h]	0	277	144	68	1187	0	148	212	335	0	0	0

Lane Group Results

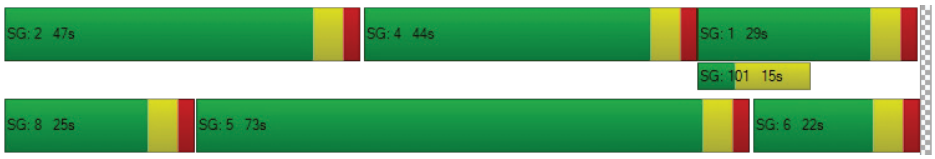
X, volume / capacity	0.78	0.88	0.52	0.49	0.59	0.59	1.33	
d, Delay for Lane Group [s/veh]	69.37	83.75	8.29	7.67	53.58	53.76	222.10	
Lane Group LOS	E	F	A	A	D	D	F	
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	
50th-Percentile Queue Length [veh]	7.58	8.42	6.09	6.05	5.66	5.32	19.40	
50th-Percentile Queue Length [ft]	189.49	210.47	152.30	151.13	141.59	133.08	485.10	
95th-Percentile Queue Length [veh]	12.09	13.18	10.14	10.08	9.57	9.11	30.18	
95th-Percentile Queue Length [ft]	302.37	329.44	253.50	251.94	239.16	227.68	754.53	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	72.82	83.75	8.29	7.97	0.00	53.58	53.73	222.10	0.00	0.00	0.00
Movement LOS		E	F	A	A		D	D	F			
d_A, Approach Delay [s/veh]	76.56			7.99			134.85			0.00		
Approach LOS	E			A			F			A		
d_I, Intersection Delay [s/veh]	57.35											
Intersection LOS	E											
Intersection V/C	0.674											

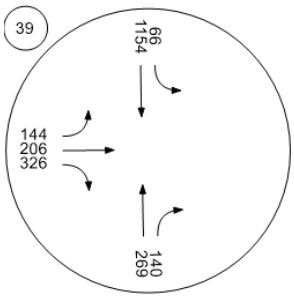
Sequence

Ring 1	2	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



IH-10 Westbound Frontage Road at Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	12.00	12.00	12.00	11.00	12.00	12.00	12.00	12.00	11.00	12.00	13.00
No. of Lanes in Pocket	0	0	0	0	0	2	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	400.00
Speed [mph]	30.00			30.00			30.00			45.00		

volumes

Name	Heights Blvd			Heights Blvd			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Base Volume Input [veh/h]	195	282	0	0	606	161	0	0	0	349	503	223
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	195	282	0	0	606	161	0	0	0	349	503	223
Peak Hour Factor	0.9260	0.9260	1.0000	1.0000	0.9260	0.9260	1.0000	1.0000	1.0000	0.9260	0.9260	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	76	0	0	164	43	0	0	0	94	136	60
Total Analysis Volume [veh/h]	211	305	0	0	654	174	0	0	0	377	543	241

Lane Group Results

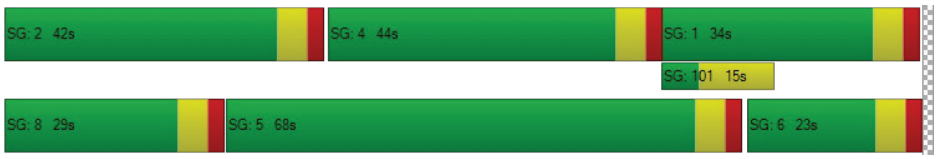
X, volume / capacity	0.40	0.19	0.17	0.49	0.52		0.64	0.50	0.44
d, Delay for Lane Group [s/veh]	40.24	12.18	11.94	34.72	37.15		39.05	33.75	33.78
Lane Group LOS	D	B	B	C	D		D	C	C
Critical Lane Group	Yes	No	No	No	Yes		Yes	No	No
50th-Percentile Queue Length [veh]	4.73	2.16	2.17	6.74	7.11		9.78	6.34	5.65
50th-Percentile Queue Length [ft]	118.18	53.90	54.19	168.57	177.64		244.60	158.57	141.37
95th-Percentile Queue Length [veh]	8.29	3.88	3.90	11.00	11.48		14.91	10.47	9.55
95th-Percentile Queue Length [ft]	207.33	97.02	97.53	275.03	286.93		372.85	261.83	238.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.30	12.05	0.00	0.00	35.10	37.15	0.00	0.00	0.00	39.05	33.75	33.78
Movement LOS	D	B			D	D				D	C	C
d_A, Approach Delay [s/veh]	21.82			35.53			0.00			35.48		
Approach LOS	C			D			A			D		
d_I, Intersection Delay [s/veh]	32.68											
Intersection LOS	C											
Intersection V/C	0.478											

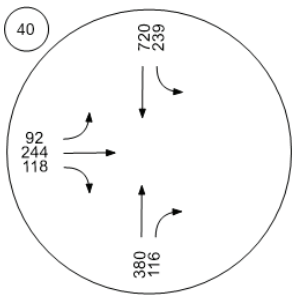
Sequence

Ring 1	2	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



IH-10 Eastbound Frontage Road at Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	13.00	12.00	12.00	11.00	12.00	11.00	12.00	13.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Base Volume Input [veh/h]	0	380	116	239	720	0	92	244	118	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	380	116	239	720	0	92	244	118	0	0	0
Peak Hour Factor	1.0000	0.9070	0.9070	0.9070	0.9070	1.0000	0.9070	0.9070	0.9070	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	105	32	66	198	0	25	67	33	0	0	0
Total Analysis Volume [veh/h]	0	419	128	264	794	0	101	269	130	0	0	0

Lane Group Results

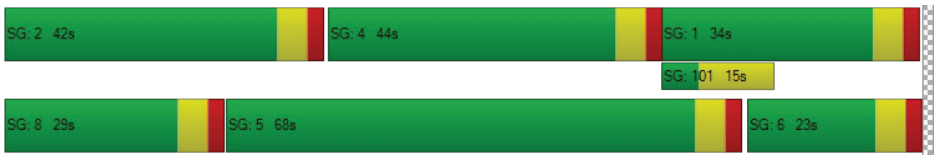
X, volume / capacity	0.62	0.69	0.15	0.38	0.37	0.48	0.47	0.50	
d, Delay for Lane Group [s/veh]	52.14	61.91	6.65	8.08	7.76	46.03	46.16	47.67	
Lane Group LOS	D	E	A	A	A	D	D	D	
Critical Lane Group	No	Yes	No	No	Yes	No	No	Yes	
50th-Percentile Queue Length [veh]	5.50	6.19	1.34	4.40	4.35	5.01	4.65	4.40	
50th-Percentile Queue Length [ft]	137.42	154.72	33.57	109.89	108.78	125.29	116.28	109.89	
95th-Percentile Queue Length [veh]	9.34	10.27	2.42	7.83	7.77	8.68	8.19	7.83	
95th-Percentile Queue Length [ft]	233.55	256.72	60.42	195.85	194.31	217.07	204.70	195.85	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	53.41	61.91	6.65	7.90	0.00	46.03	46.25	47.67	0.00	0.00	0.00
Movement LOS		D	E	A	A		D	D	D			
d_A, Approach Delay [s/veh]	55.40			7.72			46.58			0.00		
Approach LOS	E			A			D			A		
d_I, Intersection Delay [s/veh]	29.34											
Intersection LOS	C											
Intersection V/C	0.433											

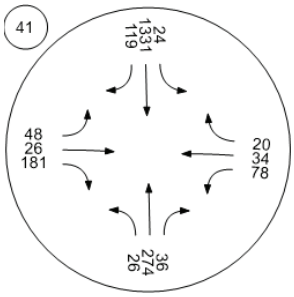
Sequence

Ring 1	2	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Koehler Street at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			Koehler St			Koehler St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	10.00	11.00	11.00	9.00	13.00	12.00	11.00	13.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	0	0	0
Pocket Length [ft]	325.00	100.00	100.00	125.00	100.00	100.00	640.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Yale St			Yale St			Koehler St			Koehler St		
Base Volume Input [veh/h]	26	274	36	24	1331	119	48	26	181	78	34	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	26	274	36	24	1331	119	48	26	181	78	34	20
Peak Hour Factor	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	70	9	6	340	30	12	7	46	20	9	5
Total Analysis Volume [veh/h]	27	280	37	25	1360	122	49	27	185	80	35	20

Lane Group Results

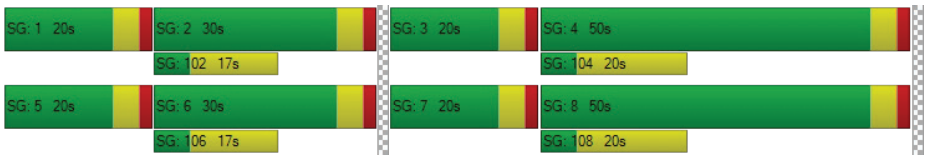
X, volume / capacity	0.08	0.15	0.16	0.03	0.71	0.72	0.10	0.83	0.23	0.19
d, Delay for Lane Group [s/veh]	13.98	12.77	12.81	7.86	23.41	23.82	33.02	55.98	34.84	43.11
Lane Group LOS	B	B	B	A	C	C	C	E	C	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.25	2.13	2.09	0.24	15.85	15.69	1.09	6.64	1.83	1.43
50th-Percentile Queue Length [ft]	6.37	53.23	52.15	6.07	396.26	392.35	27.32	166.09	45.72	35.87
95th-Percentile Queue Length [veh]	0.46	3.83	3.75	0.44	22.38	22.19	1.97	10.87	3.29	2.58
95th-Percentile Queue Length [ft]	11.46	95.81	93.86	10.93	559.49	554.77	49.18	271.77	82.29	64.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.98	12.78	12.81	7.86	23.60	23.82	33.02	55.98	55.98	34.84	43.11	43.11
Movement LOS	B	B	B	A	C	C	C	E	E	C	D	D
d_A, Approach Delay [s/veh]	12.88			23.35			51.67			38.21		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	25.93											
Intersection LOS	C											
Intersection V/C	0.581											

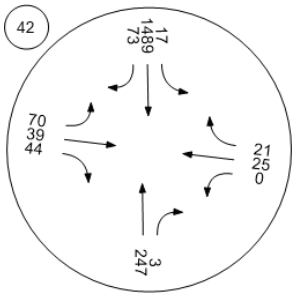
Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Center Street at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	11.00	9.00	10.00	9.00	15.00	15.00	15.00	16.00	16.00	16.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Yale St			Yale St			Center St			Center St		
Base Volume Input [veh/h]	0	247	3	17	1489	73	70	39	44	0	25	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	247	3	17	1489	73	70	39	44	0	25	21
Peak Hour Factor	1.0000	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	64	1	4	389	19	18	10	11	0	7	5
Total Analysis Volume [veh/h]	0	258	3	18	1554	76	73	41	46	0	26	22

Lane Group Results

X, volume / capacity	0.21	0.48	0.49	0.49	0.34	0.09
d, Delay for Lane Group [s/veh]	8.14	11.19	11.41	11.52	37.29	33.52
Lane Group LOS	A	B	B	B	D	C
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	2.63	7.47	7.23	6.80	4.05	1.12
50th-Percentile Queue Length [ft]	65.78	186.77	180.66	169.92	101.15	27.89
95th-Percentile Queue Length [veh]	4.74	11.95	11.63	11.07	7.28	2.01
95th-Percentile Queue Length [ft]	118.40	298.83	290.87	276.81	182.07	50.20

Movement, Approach, & Intersection Results

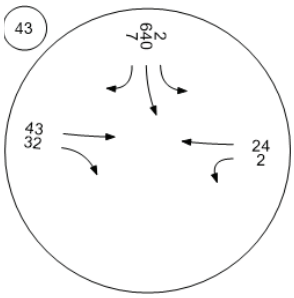
d_M, Delay for Movement [s/veh]	0.00	8.14	8.14	11.19	11.36	11.52	37.29	37.29	37.29	33.52	33.52	33.52
Movement LOS		A	A	B	B	B	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	8.14			11.37			37.29			33.52		
Approach LOS	A			B			D			C		
d_I, Intersection Delay [s/veh]	13.43											
Intersection LOS	B											
Intersection V/C	0.425											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Center Street at Southbound Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	11.00	12.00	12.00	12.00	16.00	16.00	17.00	17.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Base Volume Input [veh/h]	0	0	0	2	640	7	0	43	32	2	24	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	0	0	2	640	7	0	43	32	2	24	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9470	0.9470	0.9470	1.0000	0.9470	0.9470	0.9470	0.9470	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	169	2	0	11	8	1	6	0
Total Analysis Volume [veh/h]	0	0	0	2	676	7	0	45	34	2	25	0

Lane Group Results

X, volume / capacity		0.27	0.27	0.20	0.06
d, Delay for Lane Group [s/veh]		6.46	6.52	39.67	37.60
Lane Group LOS		A	A	D	D
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh]		3.10	2.83	2.05	0.67
50th-Percentile Queue Length [ft]		77.58	70.81	51.14	16.70
95th-Percentile Queue Length [veh]		5.59	5.10	3.68	1.20
95th-Percentile Queue Length [ft]		139.65	127.45	92.06	30.07

Movement, Approach, & Intersection Results

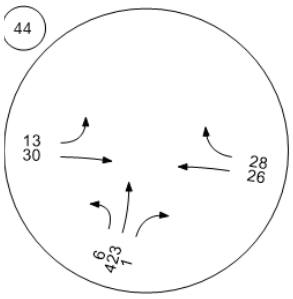
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	6.46	6.49	6.52	0.00	39.67	39.67	37.60	37.60	0.00
Movement LOS				A	A	A		D	D	D	D	
d_A, Approach Delay [s/veh]	0.00			6.49			39.67			37.60		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	10.86											
Intersection LOS	B											
Intersection V/C	0.237											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Center Street at Northbound Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	16.00	16.00	12.00	12.00	14.00	14.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			30.00			30.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Base Volume Input [veh/h]	6	423	1	0	0	0	13	30	0	0	26	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	6	423	1	0	0	0	13	30	0	0	26	28
Peak Hour Factor	0.9100	0.9100	0.9100	1.0000	1.0000	1.0000	0.9100	0.9100	1.0000	1.0000	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	116	0	0	0	0	4	8	0	0	7	8
Total Analysis Volume [veh/h]	7	465	1	0	0	0	14	33	0	0	29	31

Lane Group Results

X, volume / capacity	0.19	0.19		0.11	0.16
d, Delay for Lane Group [s/veh]	5.86	5.89		38.29	38.97
Lane Group LOS	A	A		D	D
Critical Lane Group	Yes	No		No	Yes
50th-Percentile Queue Length [veh]	1.92	1.76		1.18	1.53
50th-Percentile Queue Length [ft]	48.07	44.02		29.57	38.36
95th-Percentile Queue Length [veh]	3.46	3.17		2.13	2.76
95th-Percentile Queue Length [ft]	86.53	79.23		53.23	69.05

Movement, Approach, & Intersection Results

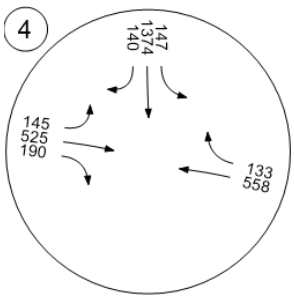
d_M, Delay for Movement [s/veh]	5.86	5.88	5.89	0.00	0.00	0.00	38.29	38.29	0.00	0.00	38.97	38.97
Movement LOS	A	A	A				D	D			D	D
d_A, Approach Delay [s/veh]	5.88			0.00			38.29			38.97		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	11.93											
Intersection LOS	B											
Intersection V/C	0.167											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Washington Avenue at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Yale St			Washington Ave			Washington Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	9.00	10.00	9.00	9.00	9.00	10.00	12.00	11.00	10.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Yale St			Washington Ave			Washington Ave		
Base Volume Input [veh/h]	0	0	0	147	1374	140	145	525	190	0	558	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	0	0	147	1374	140	145	525	190	0	558	133
Peak Hour Factor	1.0000	1.0000	1.0000	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	1.0000	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	38	358	36	38	137	49	0	145	35
Total Analysis Volume [veh/h]	0	0	0	153	1431	146	151	547	198	0	581	139

Lane Group Results

X, volume / capacity		1.06	1.06	1.06	0.26	0.36	0.36	0.33	0.18
d, Delay for Lane Group [s/veh]		95.42	96.04	98.24	12.47	12.69	12.78	19.06	17.50
Lane Group LOS		F	F	F	B	B	B	B	B
Critical Lane Group		No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]		25.44	24.51	22.76	1.92	5.35	4.90	5.01	2.25
50th-Percentile Queue Length [ft]		635.92	612.71	568.97	47.97	133.73	122.46	125.23	56.27
95th-Percentile Queue Length [veh]		35.08	33.94	31.83	3.45	9.14	8.53	8.68	4.05
95th-Percentile Queue Length [ft]		876.99	848.50	795.81	86.34	228.56	213.21	217.00	101.29

Movement, Approach, & Intersection Results

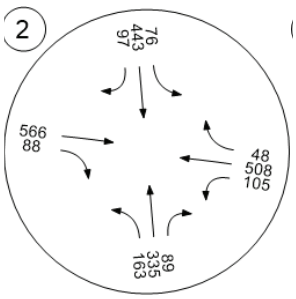
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	95.42	96.44	98.24	12.47	12.72	12.78	0.00	19.06	17.50
Movement LOS				F	F	F	B	B	B		B	B
d_A, Approach Delay [s/veh]	0.00			96.51			12.69			18.76		
Approach LOS	A			F			B			B		
d_I, Intersection Delay [s/veh]	57.33											
Intersection LOS	E											
Intersection V/C	0.564											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Washington Avenue at Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	S Heights Blvd			Heights Blvd			Washington Ave			Washington Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	11.00	12.00	10.00	14.00	15.00	12.00	10.00	9.00	10.00	11.00	11.00
No. of Lanes in Pocket	1	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	140.00	100.00	100.00	160.00	100.00	190.00	100.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	35.00			30.00			30.00			30.00		

volumes

Name	S Heights Blvd			Heights Blvd			Washington Ave			Washington Ave		
Base Volume Input [veh/h]	163	335	89	76	443	97	0	566	88	105	508	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	163	335	89	76	443	97	0	566	88	105	508	48
Peak Hour Factor	0.9110	0.9110	0.9110	0.9110	0.9110	0.9110	1.0000	0.9110	0.9110	0.9110	0.9110	0.9110
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	92	24	21	122	27	0	155	24	29	139	13
Total Analysis Volume [veh/h]	179	368	98	83	486	106	0	621	97	115	558	53

Lane Group Results

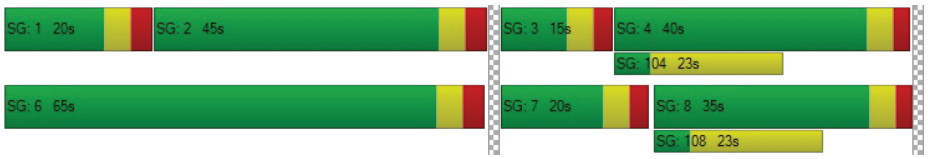
X, volume / capacity	1.10	0.58	0.35	0.54	0.76	0.37	0.35	0.13	0.66	0.26	0.26
d, Delay for Lane Group [s/veh]	154.60	46.01	43.91	55.29	48.96	44.54	18.54	16.21	56.39	10.18	10.20
Lane Group LOS	F	D	D	E	D	D	B	B	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	9.39	5.06	2.60	2.52	7.06	2.86	5.28	1.49	3.55	3.63	3.54
50th-Percentile Queue Length [ft]	234.64	126.47	64.89	63.04	176.62	71.45	132.08	37.25	88.65	90.85	88.45
95th-Percentile Queue Length [veh]	14.94	8.75	4.67	4.54	11.42	5.14	9.05	2.68	6.38	6.54	6.37
95th-Percentile Queue Length [ft]	373.39	218.68	116.80	113.47	285.60	128.60	226.32	67.06	159.58	163.53	159.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	154.60	46.01	43.91	55.29	48.96	44.54	0.00	18.54	16.21	56.39	10.19	10.20
Movement LOS	F	D	D	E	D	D		B	B	E	B	B
d_A, Approach Delay [s/veh]	75.83			49.04			18.23			17.51		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	39.01											
Intersection LOS	D											
Intersection V/C	0.473											

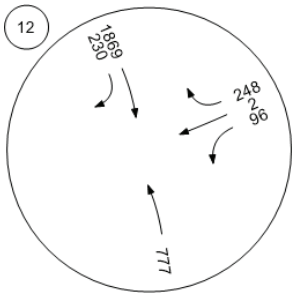
Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allen Parkway Westbound at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Allen Pkwy			Allen Pkwy			Waugh Dr		
Approach	Northbound			Eastbound			Southwestbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	12.00	12.00	12.00	12.00	10.00	11.00	12.00	12.00	10.00	11.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			35.00			35.00		

volumes

Name	Waugh Dr			Allen Pkwy			Allen Pkwy			Waugh Dr		
Base Volume Input [veh/h]	0	777	0	0	0	0	96	2	248	0	1869	230
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	777	0	0	0	0	96	2	248	0	1869	230
Peak Hour Factor	1.0000	0.9270	1.0000	1.0000	1.0000	1.0000	0.9270	0.9270	0.9270	1.0000	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	210	0	0	0	0	26	1	67	0	504	62
Total Analysis Volume [veh/h]	0	838	0	0	0	0	104	2	268	0	2016	248

Lane Group Results

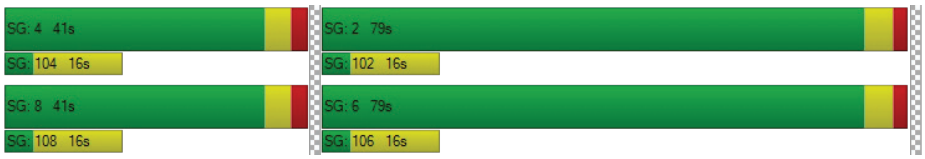
X, volume / capacity	0.23		0.28	0.45	0.41	0.59	0.60
d, Delay for Lane Group [s/veh]	5.84		39.73	41.96	41.33	9.30	10.41
Lane Group LOS	A		D	D	D	A	B
Critical Lane Group	No		No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	2.22		2.64	3.51	3.46	8.57	8.99
50th-Percentile Queue Length [ft]	55.40		66.10	87.72	86.58	214.21	224.71
95th-Percentile Queue Length [veh]	3.99		4.76	6.32	6.23	13.37	13.91
95th-Percentile Queue Length [ft]	99.71		118.98	157.90	155.85	334.23	347.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.84	0.00	0.00	0.00	0.00	39.73	39.73	41.65	0.00	9.58	10.41
Movement LOS		A					D	D	D		A	B
d_A, Approach Delay [s/veh]	5.84			0.00			41.10			9.67		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	12.13											
Intersection LOS	B											
Intersection V/C	0.525											

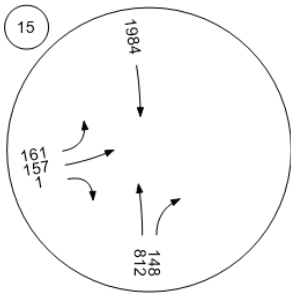
Sequence

Ring 1	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allen Parkway Eastbound at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			Allen Pkwy			Allen Pkwy		
Approach	Northbound			Southbound			Eastbound			Southwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	12.00	12.00	11.00	12.00	10.00	11.00	10.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			35.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			Allen Pkwy			Allen Pkwy		
Base Volume Input [veh/h]	0	812	148	0	1984	0	161	157	1	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	812	148	0	1984	0	161	157	1	0	0	0
Peak Hour Factor	1.0000	0.9120	0.9120	1.0000	0.9120	1.0000	0.9120	0.9120	0.9120	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	223	41	0	544	0	44	43	0	0	0	0
Total Analysis Volume [veh/h]	0	890	162	0	2175	0	177	172	1	0	0	0

Lane Group Results

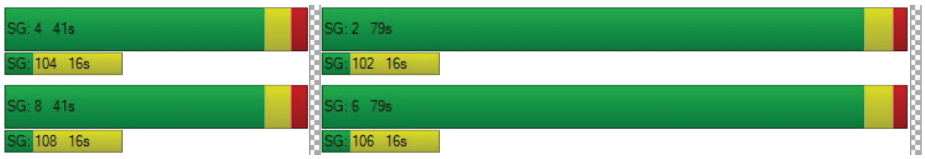
X, volume / capacity	0.28	0.28	0.60	0.47	0.46	0.00	
d, Delay for Lane Group [s/veh]	6.19	6.54	9.05	42.08	42.00	37.02	
Lane Group LOS	A	A	A	D	D	D	
Critical Lane Group	No	No	Yes	Yes	No	No	
50th-Percentile Queue Length [veh]	2.92	3.05	8.17	4.77	4.46	0.02	
50th-Percentile Queue Length [ft]	73.11	76.20	204.32	119.32	111.56	0.59	
95th-Percentile Queue Length [veh]	5.26	5.49	12.86	8.36	7.93	0.04	
95th-Percentile Queue Length [ft]	131.61	137.15	321.53	208.90	198.17	1.06	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.27	6.54	0.00	9.05	0.00	42.08	42.00	37.02	0.00	0.00	0.00
Movement LOS		A	A		A		D	D	D			
d_A, Approach Delay [s/veh]	6.31			9.05			42.03			0.00		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	11.47											
Intersection LOS	B											
Intersection V/C	0.530											

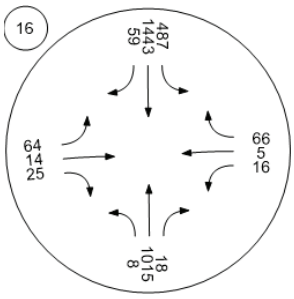
Sequence

Ring 1	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



D'Amico Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			Damico St			Damico St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	9.00	10.00	10.00	9.00	10.00	9.00	10.00	12.00	9.00	10.00	12.00	9.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			Damico St			Damico St		
Base Volume Input [veh/h]	8	1015	18	487	1443	59	64	14	25	16	5	66
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	8	1015	18	487	1443	59	64	14	25	16	5	66
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	267	5	128	380	16	17	4	7	4	1	17
Total Analysis Volume [veh/h]	8	1068	19	513	1519	62	67	15	26	17	5	69

Lane Group Results

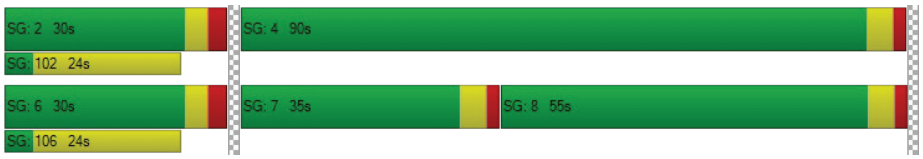
X, volume / capacity	0.38	0.39	0.39	0.81	0.39	0.40	0.30	0.15	0.08	0.27
d, Delay for Lane Group [s/veh]	16.84	17.09	17.11	25.78	5.58	6.04	49.51	41.87	42.88	43.07
Lane Group LOS	B	B	B	C	A	A	D	D	D	D
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	6.07	6.00	5.95	6.02	4.14	4.28	1.91	1.05	0.58	1.82
50th-Percentile Queue Length [ft]	151.64	149.92	148.73	150.46	103.56	107.00	47.75	26.30	14.53	45.38
95th-Percentile Queue Length [veh]	10.10	10.01	9.95	10.04	7.46	7.67	3.44	1.89	1.05	3.27
95th-Percentile Queue Length [ft]	252.61	250.33	248.73	251.04	186.40	191.81	85.94	47.33	26.15	81.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.84	17.01	17.11	25.78	5.72	6.04	49.51	41.87	41.87	42.88	42.88	43.07
Movement LOS	B	B	B	C	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	17.01			10.64			46.61			43.03		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	14.72											
Intersection LOS	B											
Intersection V/C	0.655											

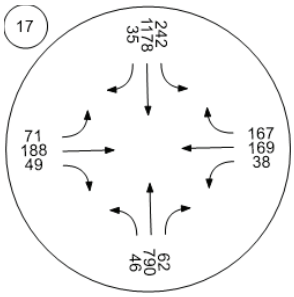
Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



West Dallas Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			W Dallas St			W Dallas St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	10.00	9.00	10.00	10.00	9.00	9.00	12.00	10.00	9.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	90.00	100.00	100.00	140.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			W Dallas St			W Dallas St		
Base Volume Input [veh/h]	46	790	62	242	1178	35	71	188	49	38	169	167
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	46	790	62	242	1178	35	71	188	49	38	169	167
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	209	16	64	312	9	19	50	13	10	45	44
Total Analysis Volume [veh/h]	49	836	66	256	1247	37	75	199	52	40	179	177

Lane Group Results

X, volume / capacity	0.12	0.37	0.37	0.49	0.49	0.49	0.37	0.38	0.38	0.41
d, Delay for Lane Group [s/veh]	12.40	21.12	21.80	16.35	21.66	22.68	40.71	32.52	32.78	33.43
Lane Group LOS	B	C	C	B	C	C	D	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.56	5.57	5.58	3.69	8.23	8.42	3.37	4.83	4.87	4.84
50th-Percentile Queue Length [ft]	13.92	139.27	139.59	92.29	205.87	210.55	84.19	120.64	121.81	120.94
95th-Percentile Queue Length [veh]	1.00	9.44	9.46	6.64	12.94	13.18	6.06	8.43	8.49	8.44
95th-Percentile Queue Length [ft]	25.06	236.04	236.47	166.12	323.52	329.54	151.55	210.70	212.32	211.11

Movement, Approach, & Intersection Results

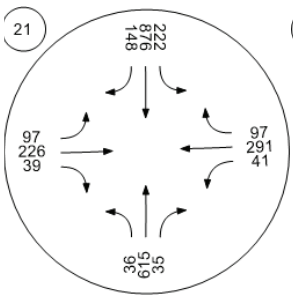
d_M, Delay for Movement [s/veh]	12.40	21.31	21.80	16.35	21.98	22.68	40.71	34.44	32.52	32.78	32.86	33.43
Movement LOS	B	C	C	B	C	C	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	20.88			21.06			35.57			33.11		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	23.97											
Intersection LOS	C											
Intersection V/C	0.400											

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

West Gray Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	AM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			W Gray St			W Gray St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	14.00	9.00	10.00	10.00	10.00	10.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	80.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			W Gray St			W Gray St		
Base Volume Input [veh/h]	36	615	35	222	876	148	97	226	39	41	291	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	36	615	35	222	876	148	97	226	39	41	291	97
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	166	9	60	237	40	26	61	11	11	79	26
Total Analysis Volume [veh/h]	39	665	38	240	947	160	105	244	42	44	315	105

Lane Group Results

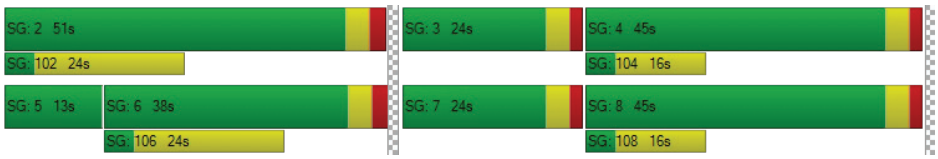
X, volume / capacity	0.09	0.50	0.50	0.45	0.65	0.25	0.49	0.32	0.46	0.49
d, Delay for Lane Group [s/veh]	16.43	31.03	31.19	19.53	30.72	24.12	30.99	26.79	37.00	37.46
Lane Group LOS	B	C	C	B	C	C	C	C	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh]	0.51	8.43	7.99	3.89	11.28	3.15	4.08	4.39	5.95	6.15
50th-Percentile Queue Length [ft]	12.83	210.80	199.77	97.37	281.95	78.66	101.88	109.78	148.79	153.85
95th-Percentile Queue Length [veh]	0.92	13.19	12.63	7.01	16.79	5.66	7.34	7.83	9.95	10.22
95th-Percentile Queue Length [ft]	23.09	329.86	315.67	175.27	419.64	141.58	183.39	195.69	248.81	255.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.43	31.10	31.19	19.53	30.72	24.12	30.99	28.13	26.79	37.00	37.20	37.46
Movement LOS	B	C	C	B	C	C	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	30.33			27.94			28.75			37.24		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	30.12											
Intersection LOS	C											
Intersection V/C	0.501											

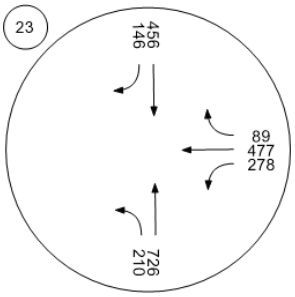
Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



IH-10 Westbound Frontage Road at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	9.00	10.00	12.00	12.00	9.00	10.00	12.00	12.00	12.00	11.00	13.00	14.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			45.00		

volumes

Name	Yale St			Yale St			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Base Volume Input [veh/h]	210	726	0	0	456	146	0	0	0	278	477	89
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	210	726	0	0	456	146	0	0	0	278	477	89
Peak Hour Factor	0.9790	0.9790	1.0000	1.0000	0.9790	0.9790	1.0000	1.0000	1.0000	0.9790	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	185	0	0	116	37	0	0	0	71	122	23
Total Analysis Volume [veh/h]	215	742	0	0	466	149	0	0	0	284	487	91

Lane Group Results

X, volume / capacity	0.58	0.50	0.79	0.86		0.52	0.52	0.52
d, Delay for Lane Group [s/veh]	18.47	15.49	59.80	68.20		37.05	36.98	37.30
Lane Group LOS	B	B	E	E		D	D	D
Critical Lane Group	Yes	Yes	No	No		No	No	Yes
50th-Percentile Queue Length [veh]	6.96	8.11	10.28	11.06		7.33	7.21	6.92
50th-Percentile Queue Length [ft]	174.10	202.84	256.90	276.38		183.34	180.21	173.06
95th-Percentile Queue Length [veh]	11.29	12.79	15.53	16.51		11.78	11.61	11.24
95th-Percentile Queue Length [ft]	282.30	319.63	388.33	412.70		294.38	290.29	280.93

Intersection Level Of Service Report
Intersection 12: Allen Pwky WB at Waugh Dr

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.594

Intersection Setup

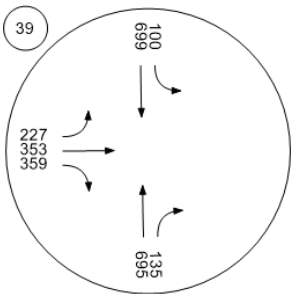
Name	Waugh Dr	Allen Pkwy	Allen Pkwy	Waugh Dr
Approach	Northbound	Eastbound	Southwestbound	Southeastbound

Sequence

Ring 1	2	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IH-10 Eastbound Frontage Road at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	9.00	9.00	11.00	11.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			30.00		

volumes

Name	Yale St			Yale St			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Base Volume Input [veh/h]	0	695	135	100	699	0	227	353	359	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	695	135	100	699	0	227	353	359	0	0	0
Peak Hour Factor	1.0000	0.9830	0.9830	0.9830	0.9830	1.0000	0.9830	0.9830	0.9830	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	177	34	25	178	0	58	90	91	0	0	0
Total Analysis Volume [veh/h]	0	707	137	102	711	0	231	359	365	0	0	0

Lane Group Results

X, volume / capacity	0.88	0.94	0.43	0.36	0.78	0.78	1.17	
d, Delay for Lane Group [s/veh]	62.97	71.99	11.32	8.02	58.80	59.27	152.02	
Lane Group LOS	E	E	B	A	E	E	F	
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	
50th-Percentile Queue Length [veh]	14.65	15.76	3.92	4.26	9.82	9.28	18.09	
50th-Percentile Queue Length [ft]	366.37	393.90	97.90	106.59	245.41	232.08	452.31	
95th-Percentile Queue Length [veh]	20.93	22.27	7.05	7.65	14.95	14.28	27.19	
95th-Percentile Queue Length [ft]	523.33	556.64	176.22	191.25	373.87	357.01	679.67	

Movement, Approach, & Intersection Results

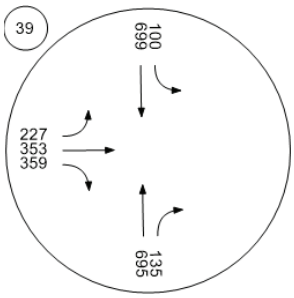
d_M, Delay for Movement [s/veh]	0.00	66.60	71.99	11.32	9.36	0.00	58.80	59.17	152.02	0.00	0.00	0.00
Movement LOS		E	E	B	A		E	E	F			
d_A, Approach Delay [s/veh]	67.48			9.61			94.57			0.00		
Approach LOS	E			A			F			A		
d_I, Intersection Delay [s/veh]	59.37											
Intersection LOS	E											
Intersection V/C	0.685											

Sequence

Ring 1	2	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IH-10 Westbound Frontage Road at Heights Boulevard

Corridor	**Existing**
Traffic Volume	**Existing**
Period	**PM**



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	12.00	12.00	12.00	11.00	12.00	12.00	12.00	12.00	11.00	12.00	13.00
No. of Lanes in Pocket	0	0	0	0	0	2	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	400.00
Speed [mph]	30.00			30.00			30.00			45.00		

volumes

Name	Heights Blvd			Heights Blvd			I-10 WB Frontage Rd			I-10 WB Frontage Rd		
Base Volume Input [veh/h]	188	645	0	0	430	114	0	0	0	314	525	389
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	188	645	0	0	430	114	0	0	0	314	525	389
Peak Hour Factor	0.9820	0.9820	1.0000	1.0000	0.9820	0.9820	1.0000	1.0000	1.0000	0.9820	0.9820	0.9820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	164	0	0	109	29	0	0	0	80	134	99
Total Analysis Volume [veh/h]	191	657	0	0	438	116	0	0	0	320	535	396

Lane Group Results

X, volume / capacity	0.25	0.32	0.26	0.62	0.66		0.59	0.54	0.78
d, Delay for Lane Group [s/veh]	23.04	12.30	11.56	51.44	58.48		39.55	36.49	49.07
Lane Group LOS	C	B	B	D	E		D	D	D
Critical Lane Group	No	Yes	No	No	Yes		No	No	Yes
50th-Percentile Queue Length [veh]	3.65	5.21	3.44	5.54	6.07		8.30	6.54	11.75
50th-Percentile Queue Length [ft]	91.36	130.18	85.91	138.40	151.77		207.44	163.44	293.83
95th-Percentile Queue Length [veh]	6.58	8.95	6.19	9.39	10.11		13.02	10.73	17.38
95th-Percentile Queue Length [ft]	164.45	223.73	154.63	234.86	252.79		325.55	268.27	434.39

Movement, Approach, & Intersection Results

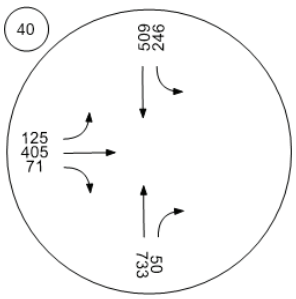
d_M, Delay for Movement [s/veh]	23.04	12.00	0.00	0.00	52.54	58.48	0.00	0.00	0.00	39.55	36.49	49.07
Movement LOS	C	B			D	E				D	D	D
d_A, Approach Delay [s/veh]	14.48			53.78			0.00			41.26		
Approach LOS	B			D			A			D		
d_I, Intersection Delay [s/veh]	35.31											
Intersection LOS	D											
Intersection V/C	0.524											

Sequence

Ring 1	2	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IH-10 Eastbound Frontage Road at Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	13.00	12.00	12.00	11.00	12.00	11.00	12.00	13.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			45.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			I-10 EB Frontage Rd			I-10 EB Frontage Rd		
Base Volume Input [veh/h]	0	733	50	246	509	0	125	405	71	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	733	50	246	509	0	125	405	71	0	0	0
Peak Hour Factor	1.0000	0.9520	0.9520	0.9520	0.9520	1.0000	0.9520	0.9520	0.9520	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	192	13	65	134	0	33	106	19	0	0	0
Total Analysis Volume [veh/h]	0	770	53	258	535	0	131	425	75	0	0	0

Lane Group Results

X, volume / capacity	0.50	0.51	0.41	0.42	0.41	0.51	0.51	0.52	
d, Delay for Lane Group [s/veh]	36.13	38.06	30.83	31.10	31.10	43.62	43.77	44.37	
Lane Group LOS	D	D	C	C	C	D	D	D	
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	
50th-Percentile Queue Length [veh]	6.83	7.13	5.93	6.54	5.83	6.07	5.65	5.46	
50th-Percentile Queue Length [ft]	170.86	178.14	148.14	163.53	145.71	151.70	141.30	136.60	
95th-Percentile Queue Length [veh]	11.12	11.50	9.92	10.74	9.79	10.11	9.55	9.30	
95th-Percentile Queue Length [ft]	278.04	287.58	247.95	268.38	244.69	252.70	238.77	232.44	

Movement, Approach, & Intersection Results

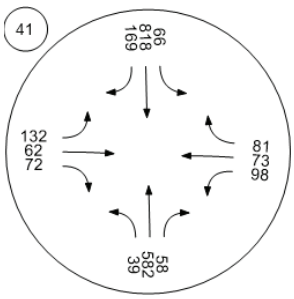
d_M, Delay for Movement [s/veh]	0.00	36.68	38.06	30.83	31.10	0.00	43.62	43.91	44.37	0.00	0.00	0.00
Movement LOS		D	D	C	C		D	D	D			
d_A, Approach Delay [s/veh]	36.77			31.01			43.91			0.00		
Approach LOS	D			C			D			A		
d_I, Intersection Delay [s/veh]	36.74											
Intersection LOS	D											
Intersection V/C	0.429											

Sequence

Ring 1	2	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	5	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Koehler Street at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			Koehler St			Koehler St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	10.00	11.00	11.00	9.00	13.00	12.00	11.00	13.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	0	0	0
Pocket Length [ft]	325.00	100.00	100.00	125.00	100.00	100.00	640.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Yale St			Yale St			Koehler St			Koehler St		
Base Volume Input [veh/h]	39	582	58	66	818	169	132	62	72	98	73	81
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	39	582	58	66	818	169	132	62	72	98	73	81
Peak Hour Factor	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	147	15	17	206	43	33	16	18	25	18	20
Total Analysis Volume [veh/h]	39	587	58	67	825	170	133	63	73	99	74	82

Lane Group Results

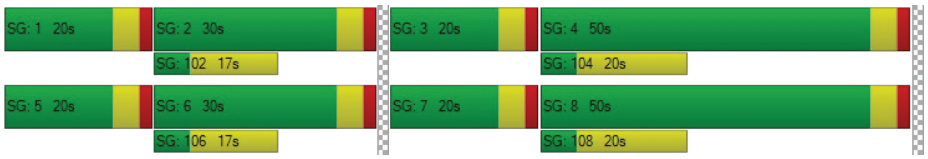
X, volume / capacity	0.08	0.32	0.32	0.11	0.48	0.48	0.35	0.59	0.25	0.68
d, Delay for Lane Group [s/veh]	8.91	15.16	15.20	8.05	16.92	17.02	37.31	50.93	36.24	52.90
Lane Group LOS	A	B	B	A	B	B	D	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	0.34	4.95	4.82	0.64	8.55	8.08	3.23	3.98	2.35	4.68
50th-Percentile Queue Length [ft]	8.52	123.83	120.55	15.92	213.78	202.08	80.65	99.50	58.70	117.01
95th-Percentile Queue Length [veh]	0.61	8.60	8.42	1.15	13.35	12.75	5.81	7.16	4.23	8.23
95th-Percentile Queue Length [ft]	15.33	215.07	210.58	28.66	333.67	318.65	145.17	179.11	105.66	205.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.91	15.18	15.20	8.05	16.95	17.02	37.31	50.93	50.93	36.24	52.90	52.90
Movement LOS	A	B	B	A	B	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	14.82			16.40			44.19			46.43		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	22.59											
Intersection LOS	C											
Intersection V/C	0.438											

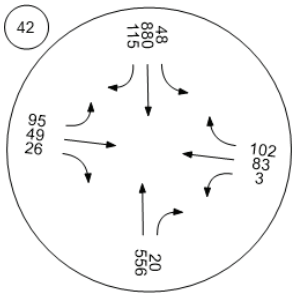
Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Center Street at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Yale St			Yale St			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	11.00	9.00	10.00	9.00	15.00	15.00	15.00	16.00	16.00	16.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Yale St			Yale St			Center St			Center St		
Base Volume Input [veh/h]	0	556	20	48	880	115	95	49	26	3	83	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	556	20	48	880	115	95	49	26	3	83	102
Peak Hour Factor	1.0000	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	150	5	13	237	31	26	13	7	1	22	27
Total Analysis Volume [veh/h]	0	598	22	52	947	124	102	53	28	3	89	110

Lane Group Results

X, volume / capacity	0.50	0.36	0.37	0.37	0.53	0.40
d, Delay for Lane Group [s/veh]	11.49	9.99	9.79	9.89	46.57	38.83
Lane Group LOS	B	A	A	A	D	D
Critical Lane Group	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	8.17	3.52	4.87	4.46	5.46	5.25
50th-Percentile Queue Length [ft]	204.27	88.11	121.67	111.57	136.62	131.30
95th-Percentile Queue Length [veh]	12.86	6.34	8.48	7.93	9.30	9.01
95th-Percentile Queue Length [ft]	321.47	158.60	212.12	198.18	232.47	225.26

Movement, Approach, & Intersection Results

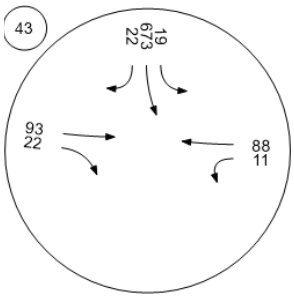
d_M, Delay for Movement [s/veh]	0.00	11.49	11.49	9.99	9.87	9.89	46.57	46.57	46.57	38.83	38.83	38.83
Movement LOS		B	B	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	11.49			9.88			46.57			38.83		
Approach LOS	B			A			D			D		
d_I, Intersection Delay [s/veh]	16.25											
Intersection LOS	B											
Intersection V/C	0.497											

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Center Street at Southbound Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	11.00	12.00	12.00	12.00	16.00	16.00	17.00	17.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Base Volume Input [veh/h]	0	0	0	19	673	22	0	93	22	11	88	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	0	0	19	673	22	0	93	22	11	88	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.8390	0.8390	0.8390	1.0000	0.8390	0.8390	0.8390	0.8390	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	6	201	7	0	28	7	3	26	0
Total Analysis Volume [veh/h]	0	0	0	23	802	26	0	111	26	13	105	0

Lane Group Results

X, volume / capacity		0.34	0.34	0.34	0.27
d, Delay for Lane Group [s/veh]		7.03	7.10	41.96	40.68
Lane Group LOS		A	A	D	D
Critical Lane Group		No	Yes	Yes	No
50th-Percentile Queue Length [veh]		4.12	3.74	3.69	3.10
50th-Percentile Queue Length [ft]		102.95	93.51	92.14	77.50
95th-Percentile Queue Length [veh]		7.41	6.73	6.63	5.58
95th-Percentile Queue Length [ft]		185.32	168.32	165.85	139.50

Movement, Approach, & Intersection Results

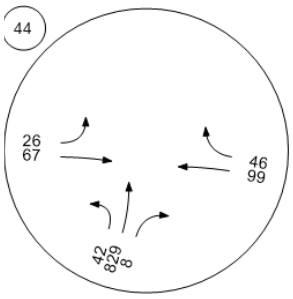
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	7.03	7.06	7.10	0.00	41.96	41.96	40.68	40.68	0.00
Movement LOS				A	A	A		D	D	D	D	
d_A, Approach Delay [s/veh]	0.00			7.06			41.96			40.68		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	14.97											
Intersection LOS	B											
Intersection V/C	0.314											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Center Street at Northbound Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	16.00	16.00	12.00	12.00	14.00	14.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			30.00			30.00			30.00		

volumes

Name	Heights Blvd			Heights Blvd			Center St			Center St		
Base Volume Input [veh/h]	42	829	8	0	0	0	26	67	0	0	99	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	42	829	8	0	0	0	26	67	0	0	99	46
Peak Hour Factor	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	225	2	0	0	0	7	18	0	0	27	13
Total Analysis Volume [veh/h]	46	901	9	0	0	0	28	73	0	0	108	50

Lane Group Results

X, volume / capacity	0.38	0.38		0.30	0.40
d, Delay for Lane Group [s/veh]	7.41	7.49		41.32	43.24
Lane Group LOS	A	A		D	D
Critical Lane Group	No	Yes		No	Yes
50th-Percentile Queue Length [veh]	4.64	4.25		2.69	4.34
50th-Percentile Queue Length [ft]	116.00	106.35		67.23	108.55
95th-Percentile Queue Length [veh]	8.17	7.64		4.84	7.76
95th-Percentile Queue Length [ft]	204.32	190.91		121.02	193.98

Movement, Approach, & Intersection Results

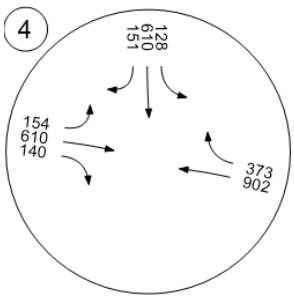
d_M, Delay for Movement [s/veh]	7.41	7.45	7.49	0.00	0.00	0.00	41.32	41.32	0.00	0.00	43.24	43.24
Movement LOS	A	A	A				D	D			D	D
d_A, Approach Delay [s/veh]	7.45			0.00			41.32			43.24		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	14.92											
Intersection LOS	B											
Intersection V/C	0.356											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Washington Avenue at Yale Street

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Yale St			Washington Ave			Washington Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	9.00	10.00	9.00	9.00	9.00	10.00	12.00	11.00	10.00
No. of Lanes in Pocket	0	0	0	0	0	0	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Yale St			Washington Ave			Washington Ave		
Base Volume Input [veh/h]	0	0	0	128	610	151	154	610	140	0	902	373
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	0	0	128	610	151	154	610	140	0	902	373
Peak Hour Factor	1.0000	1.0000	1.0000	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	1.0000	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	34	161	40	41	161	37	0	238	98
Total Analysis Volume [veh/h]	0	0	0	135	644	159	163	644	148	0	952	394

Lane Group Results

X, volume / capacity		0.58	0.58	0.59	0.37	0.38	0.38	0.55	0.51
d, Delay for Lane Group [s/veh]		38.09	38.19	39.05	16.06	12.93	13.00	22.43	22.99
Lane Group LOS		D	D	D	B	B	B	C	C
Critical Lane Group		No	No	Yes	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh]		8.75	8.46	7.59	2.19	5.69	5.35	9.45	7.88
50th-Percentile Queue Length [ft]		218.75	211.40	189.69	54.75	142.37	133.76	236.18	197.05
95th-Percentile Queue Length [veh]		13.60	13.23	12.11	3.94	9.61	9.14	14.49	12.49
95th-Percentile Queue Length [ft]		340.03	330.63	302.63	98.55	240.21	228.60	362.19	312.16

Movement, Approach, & Intersection Results

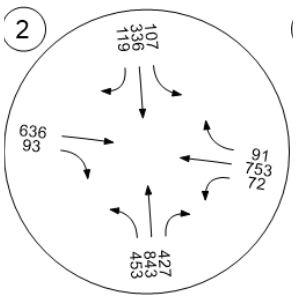
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	38.09	38.33	39.05	16.06	12.95	13.00	0.00	22.43	22.99
Movement LOS				D	D	D	B	B	B		C	C
d_A, Approach Delay [s/veh]	0.00			38.42			13.49			22.59		
Approach LOS	A			D			B			C		
d_I, Intersection Delay [s/veh]	24.49											
Intersection LOS	C											
Intersection V/C	0.508											

Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Washington Avenue at Heights Boulevard

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	S Heights Blvd			Heights Blvd			Washington Ave			Washington Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	11.00	12.00	10.00	14.00	15.00	12.00	10.00	9.00	10.00	11.00	11.00
No. of Lanes in Pocket	1	0	0	1	0	1	0	0	0	1	0	0
Pocket Length [ft]	140.00	100.00	100.00	160.00	100.00	190.00	100.00	100.00	100.00	80.00	100.00	100.00
Speed [mph]	35.00			30.00			30.00			30.00		

volumes

Name	S Heights Blvd			Heights Blvd			Washington Ave			Washington Ave		
Base Volume Input [veh/h]	453	843	427	107	336	119	0	636	93	72	753	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	453	843	427	107	336	119	0	636	93	72	753	91
Peak Hour Factor	0.9690	0.9690	0.9690	0.9690	0.9690	0.9690	1.0000	0.9690	0.9690	0.9690	0.9690	0.9690
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	117	217	110	28	87	31	0	164	24	19	194	23
Total Analysis Volume [veh/h]	467	870	441	110	347	123	0	656	96	74	777	94

Lane Group Results

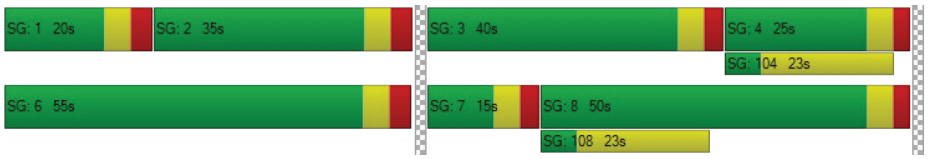
X, volume / capacity	0.91	0.74	0.84	0.68	0.70	0.56	0.52		0.18	0.47	0.50	0.50
d, Delay for Lane Group [s/veh]	60.51	36.40	46.16	63.53	51.47	50.94	32.29		27.46	54.06	23.59	23.67
Lane Group LOS	E	D	D	E	D	D	C		C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No		No	No	No	Yes
50th-Percentile Queue Length [veh]	15.81	11.20	13.04	3.70	5.10	3.60	7.77		2.02	2.22	8.98	8.66
50th-Percentile Queue Length [ft]	395.18	279.90	325.92	92.42	127.53	89.90	194.28		50.45	55.40	224.42	216.50
95th-Percentile Queue Length [veh]	22.33	16.68	18.96	6.65	8.81	6.47	12.34		3.63	3.99	13.89	13.49
95th-Percentile Queue Length [ft]	558.19	417.09	473.95	166.35	220.13	161.81	308.58		90.81	99.72	347.26	337.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.51	36.40	46.16	63.53	51.47	50.94	0.00	32.29	27.46	54.06	23.63	23.67
Movement LOS	E	D	D	E	D	D		C	C	D	C	C
d_A, Approach Delay [s/veh]	45.15			53.64			31.68			26.01		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	39.41											
Intersection LOS	D											
Intersection V/C	0.596											

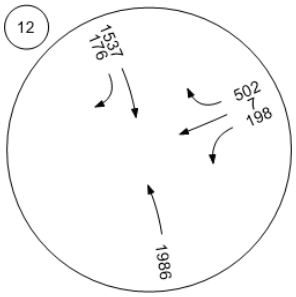
Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allen Parkway Westbound at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Allen Pkwy			Allen Pkwy			Waugh Dr		
Approach	Northbound			Eastbound			Southwestbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	12.00	12.00	12.00	12.00	10.00	11.00	12.00	12.00	10.00	11.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			35.00			35.00		

volumes

Name	Waugh Dr			Allen Pkwy			Allen Pkwy			Waugh Dr		
Base Volume Input [veh/h]	0	1986	0	0	0	0	198	7	502	0	1537	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	1986	0	0	0	0	198	7	502	0	1537	176
Peak Hour Factor	1.0000	0.9740	1.0000	1.0000	1.0000	1.0000	0.9740	0.9740	0.9740	1.0000	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	510	0	0	0	0	51	2	129	0	395	45
Total Analysis Volume [veh/h]	0	2039	0	0	0	0	203	7	515	0	1578	181

Lane Group Results

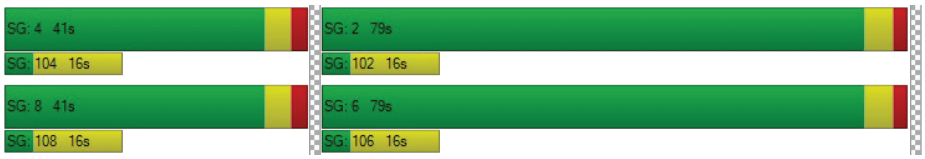
X, volume / capacity	0.57		0.52	0.84	0.76	0.47	0.47
d, Delay for Lane Group [s/veh]	9.44		41.45	54.95	48.43	8.48	9.17
Lane Group LOS	A		D	D	D	A	A
Critical Lane Group	Yes		No	Yes	No	No	No
50th-Percentile Queue Length [veh]	8.13		5.50	8.12	7.54	6.12	6.37
50th-Percentile Queue Length [ft]	203.37		137.39	203.12	188.53	153.08	159.32
95th-Percentile Queue Length [veh]	12.81		9.34	12.80	12.04	10.18	10.51
95th-Percentile Queue Length [ft]	320.30		233.51	319.99	301.12	254.53	262.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	9.44	0.00	0.00	0.00	0.00	41.45	41.45	51.69	0.00	8.66	9.17
Movement LOS		A					D	D	D		A	A
d_A, Approach Delay [s/veh]	9.44			0.00			48.73			8.71		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	15.45											
Intersection LOS	B											
Intersection V/C	0.594											

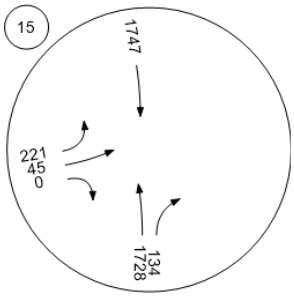
Sequence

Ring 1	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allen Parkway Eastbound at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			Allen Pkwy			Allen Pkwy		
Approach	Northbound			Southbound			Eastbound			Southwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	11.00	12.00	12.00	11.00	12.00	10.00	11.00	10.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			35.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			Allen Pkwy			Allen Pkwy		
Base Volume Input [veh/h]	0	1728	134	0	1747	0	221	45	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	0	1728	134	0	1747	0	221	45	0	0	0	0
Peak Hour Factor	1.0000	0.9780	0.9780	1.0000	0.9780	1.0000	0.9780	0.9780	0.9780	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	442	34	0	447	0	56	12	0	0	0	0
Total Analysis Volume [veh/h]	0	1767	137	0	1786	0	226	46	0	0	0	0

Lane Group Results

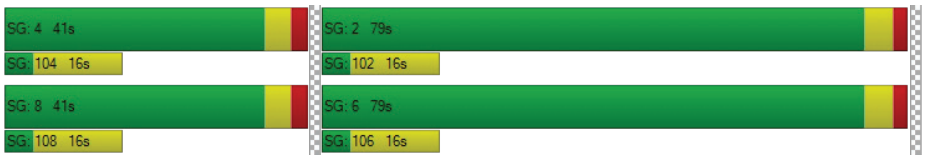
X, volume / capacity	0.50	0.49	0.49	0.59	0.13	0.00	
d, Delay for Lane Group [s/veh]	8.10	8.70	7.81	43.87	38.18	0.00	
Lane Group LOS	A	A	A	D	D	A	
Critical Lane Group	Yes	No	No	Yes	No	No	
50th-Percentile Queue Length [veh]	6.65	6.84	5.90	6.19	1.12	0.00	
50th-Percentile Queue Length [ft]	166.14	170.96	147.46	154.86	27.95	0.00	
95th-Percentile Queue Length [veh]	10.87	11.13	9.88	10.28	2.01	0.00	
95th-Percentile Queue Length [ft]	271.83	278.18	247.04	256.90	50.31	0.00	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	8.27	8.70	0.00	7.81	0.00	43.87	38.18	0.00	0.00	0.00	0.00
Movement LOS		A	A		A		D	D	A			
d_A, Approach Delay [s/veh]	8.30			7.81			42.91			0.00		
Approach LOS	A			A			D			A		
d_I, Intersection Delay [s/veh]	10.45											
Intersection LOS	B											
Intersection V/C	0.485											

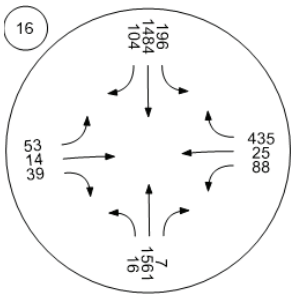
Sequence

Ring 1	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	8	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



D'Amico Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			Damico St			Damico St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	9.00	10.00	10.00	9.00	10.00	9.00	10.00	12.00	9.00	10.00	12.00	9.00
No. of Lanes in Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			Damico St			Damico St		
Base Volume Input [veh/h]	16	1561	7	196	1484	104	53	14	39	88	25	435
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	16	1561	7	196	1484	104	53	14	39	88	25	435
Peak Hour Factor	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740	0.9740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	401	2	50	381	27	14	4	10	23	6	112
Total Analysis Volume [veh/h]	16	1603	7	201	1524	107	54	14	40	90	26	447

Lane Group Results

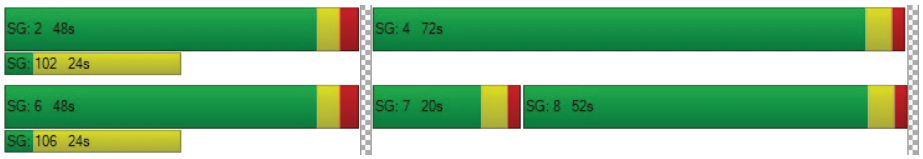
X, volume / capacity	0.70	0.73	0.73	0.60	0.54	0.55	0.47	0.10	0.22	0.85
d, Delay for Lane Group [s/veh]	32.00	33.68	33.70	30.27	17.31	18.44	69.64	25.12	29.21	47.57
Lane Group LOS	C	C	C	C	B	B	E	C	C	D
Critical Lane Group	Yes	No	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	13.25	13.89	13.86	3.43	9.45	9.54	2.05	1.03	2.49	13.67
50th-Percentile Queue Length [ft]	331.30	347.27	346.57	85.69	236.37	238.56	51.27	25.85	62.14	341.73
95th-Percentile Queue Length [veh]	19.22	20.00	19.97	6.17	14.50	14.61	3.69	1.86	4.47	19.73
95th-Percentile Queue Length [ft]	480.55	500.08	499.23	154.24	362.44	365.22	92.29	46.53	111.86	493.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.00	33.14	33.70	30.27	17.62	18.44	69.64	25.12	25.12	29.21	29.21	47.57
Movement LOS	C	C	C	C	B	B	E	C	C	C	C	D
d_A, Approach Delay [s/veh]	33.13			19.06			47.38			43.78		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	28.71											
Intersection LOS	C											
Intersection V/C	0.752											

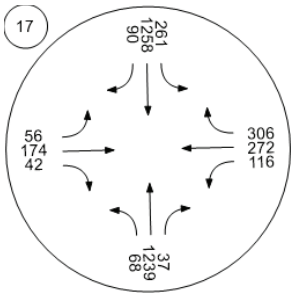
Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



West Dallas Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			W Dallas St			W Dallas St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	10.00	9.00	10.00	10.00	9.00	9.00	12.00	10.00	9.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	90.00	100.00	100.00	140.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

Name	Waugh Dr			Waugh Dr			W Dallas St			W Dallas St		
Base Volume Input [veh/h]	68	1239	37	261	1258	90	56	174	42	116	272	306
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	68	1239	37	261	1258	90	56	174	42	116	272	306
Peak Hour Factor	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	314	9	66	319	23	14	44	11	29	69	78
Total Analysis Volume [veh/h]	69	1257	38	265	1276	91	57	176	43	118	276	310

Lane Group Results

X, volume / capacity	0.18	0.56	0.56	0.63	0.57	0.57	0.36	0.37	0.67	0.74
d, Delay for Lane Group [s/veh]	15.03	26.73	28.20	25.80	25.39	26.90	56.79	30.33	45.33	42.36
Lane Group LOS	B	C	C	C	C	C	E	C	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.88	9.42	9.67	4.43	9.77	9.85	1.91	4.97	9.27	11.18
50th-Percentile Queue Length [ft]	22.05	235.50	241.68	110.77	244.22	246.16	47.69	124.34	231.85	279.48
95th-Percentile Queue Length [veh]	1.59	14.45	14.77	7.88	14.89	14.99	3.43	8.63	14.27	16.66
95th-Percentile Queue Length [ft]	39.68	361.33	369.16	197.07	372.36	374.81	85.84	215.77	356.71	416.57

Movement, Approach, & Intersection Results

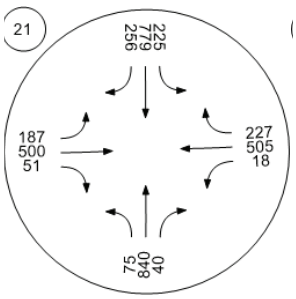
d_M, Delay for Movement [s/veh]	15.03	27.19	28.20	25.80	25.81	26.90	56.79	30.33	30.33	45.33	44.44	42.36
Movement LOS	B	C	C	C	C	C	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	26.60			25.87			35.79			43.67		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.96											
Intersection LOS	C											
Intersection V/C	0.592											

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

West Gray Street at Waugh Drive

Corridor	Existing
Traffic Volume	Existing
Period	PM



Peak Hour Volume

Intersection Setup

Name	Waugh Dr			Waugh Dr			W Gray St			W Gray St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	14.00	9.00	10.00	10.00	10.00	10.00	12.00	11.00	11.00	12.00	11.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	80.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		

volumes

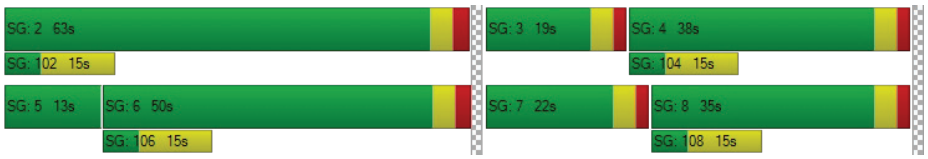
Name	Waugh Dr			Waugh Dr			W Gray St			W Gray St		
Base Volume Input [veh/h]	75	840	40	225	779	256	187	500	51	18	505	227
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Hourly Volume [veh/h]	75	840	40	225	779	256	187	500	51	18	505	227
Peak Hour Factor	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	218	10	58	202	66	48	130	13	5	131	59
Total Analysis Volume [veh/h]	78	870	41	233	807	265	194	518	53	19	523	235

Lane Group Results

X, volume / capacity	0.20	0.87	0.88	0.60	0.77	0.57	0.96	0.53	0.55	0.58
d, Delay for Lane Group [s/veh]	23.35	59.23	60.19	33.28	44.36	41.05	66.71	23.37	30.12	31.54
Lane Group LOS	C	E	E	C	D	D	E	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh]	1.34	15.74	15.03	4.99	11.60	7.23	9.65	8.72	9.81	8.49
50th-Percentile Queue Length [ft]	33.51	393.60	375.72	124.79	289.93	180.74	241.30	218.02	245.26	212.27
95th-Percentile Queue Length [veh]	2.41	22.25	21.39	8.66	17.18	11.64	14.75	13.56	14.95	13.27
95th-Percentile Queue Length [ft]	60.32	556.29	534.67	216.39	429.55	290.99	368.68	339.10	373.68	331.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.35	59.67	60.19	33.28	44.36	41.05	66.71	35.15	23.37	30.12	30.45	31.54
Movement LOS	C	E	E	C	D	D	E	D	C	C	C	C
d_A, Approach Delay [s/veh]	56.83			41.71			42.34			30.77		
Approach LOS	E			D			D			C		
d_I, Intersection Delay [s/veh]	43.52											
Intersection LOS	D											
Intersection V/C	0.655											

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-