

Appendix – Volume 2

HCM Worksheets

HCM Worksheets

Scenario 1

2017 Existing

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	58.26
Average LOS	E
V/C	0.9
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	260	70	96	322	38	73	226	70	106	461	85
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	68	18	25	84	10	19	59	18	28	120	22
Adjusted Volume	41	271	73	100	335	40	76	235	73	110	480	89

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	8172	8173	8170	8171	8176	8177	8174	8175
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	344	100	375	76	308	110	569
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.11	0.00	0.24	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	8172	8173	8170	8171	8176	8177	8174	8175
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.984	1.000	0.965	1.000	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1737	1644	1719	1676	1707

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	8172	8173	8170	8171	8176	8177	8174	8175
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	343.75	100	375	76.04	308.33	110.42	568.75
s, Saturation Flow Rate	1710	1725	1644	1737	1644	1719	1676	1707
c, Capacity	46	471	91	496	117	546	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.73	1.1	0.76	0.65	0.56	0.92	1.1
d1, Uniform Delay	27.17	18.47	26.45	18.22	25.31	15.88	25.85	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	9.53	123.54	10.26	24.40	4.18	63.37	71.26
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.00	149.99	28.48	49.71	20.05	89.21	90.81
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.73		54.06		25.92		90.55	
Approach LOS	D		D		C		F	
dI, Intersection Delay	58.26							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	8172	8173	8170	8171	8176	8177	8174	8175
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.85	1.56	5.31	1.15	3.99	1.71	8.85
Q2, Second-term Queued	0.44	1.21	2.05	1.42	0.32	0.68	1.12	10.27
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.50	0.18	0.54	0.19	0.52
Q, Average Back of Queue	1.07	6.06	3.61	6.73	1.47	4.67	2.83	19.12
fB%, % Factor	1.90	1.65	1.74	1.63	1.87	1.70	1.78	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.00	6.29	10.98	2.75	7.92	5.04	28.89

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	8172	8173	8170	8171	8176	8177	8174	8175
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.22	0.05	0.18	0.07	0.33
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	8172	8173	8170	8171	8176	8177	8174	8175
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		15.91	
Average LOS		B	
V/C		0.76	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	6	1727	14	22	30	22	28	1592	13	22	22	92
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	464	4	6	8	6	8	428	3	6	6	25
Adjusted Volume	6	1857	15	24	32	24	30	1712	14	24	24	99

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	8183	8184	8186	8182	8178	8179	8181	8187
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6	1857	15	80	30	1712	14	146
PLT, Proportion Left Turns	1.00	0.00	0.00	0.30	1.00	0.00	0.00	0.16
PRT, Proportion Right Turns	0.00	0.00	1.00	0.30	0.00	0.00	1.00	0.68

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	8183	8184	8186	8182	8178	8179	8181	8187
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.584	0.950	1.000	1.000	0.921
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.960	1.000	1.000	0.850	0.909
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1010	1710	3327	1530	1507

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	8183	8184	8186	8182	8178	8179	8181	8187
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6.45	1856.99	15.05	79.57	30.11	1711.83	13.98	146.24
s, Saturation Flow Rate	1710	3327	1530	1010	1710	3327	1530	1507
c, Capacity	29	2440	1122	109	71	2523	1160	163
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.23	0.76	0.01	0.73	0.42	0.68	0.01	0.9
d1, Uniform Delay	58.24	9.66	4.31	51.79	56.09	7.22	3.54	52.83
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	17.59	2.30	0.02	34.32	17.33	1.49	0.02	47.20
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.83	11.96	4.33	86.11	73.42	8.71	3.56	100.03
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.11			86.11	9.78			100.03
Approach LOS	B			F	A			F
dI, Intersection Delay	15.91							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	8183	8184	8186	8182	8178	8179	8181	8187
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.21	19.62	0.14	2.57	0.98	14.92	0.11	4.81
Q2, Second-term Queued	0.03	4.71	0.02	0.67	0.16	3.38	0.02	1.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.30	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.25	24.33	0.16	3.24	1.14	18.29	0.13	6.63
fB%, % Factor	1.98	1.50	1.98	1.76	1.90	1.51	1.99	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.49	36.59	0.31	5.71	2.16	27.67	0.26	10.83

Signal Timing Information								
Approach	N			E	S			W
Lane Group	8183	8184	8186	8182	8178	8179	8181	8187
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.56	0.01	0.08	0.02	0.51	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	8183	8184	8186	8182	8178	8179	8181	8187
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				23.66
PLT, Proportion LT in Lane				0.30				0.16
PLTo, Proportion LT in Op				0.16				0.30
LT Volume per Cycle				0.79				0.79
Vo, Opposing Flow				146.24				79.57
Volc, Adjusted Opposing F				4.87				2.65
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				2.20
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.63				5.20
gu				2.37				7.80
PL				0.30				0.16
de facto caused by PL >=								
EL1				1.47				1.37
EL2				6.18				2.50
gdif				8.44				3.01
fm				0.58				0.92
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.58	0.95	1.00	1.00	0.92

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				38.73								
Average LOS				D								
V/C				0.84								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	89	1640	110	102	218	148	191	1447	85	23	168	25
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	24	436	29	27	58	39	51	385	23	6	45	7
Adjusted Volume	95	1745	117	109	232	157	203	1539	90	24	179	27

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	95	1745	117	109	232	37	121	203	1539	90	24	179	27
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.618	1.000	1.000	1.000	0.950	1.000	1.000	0.534	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1091	3427	1515	1515	1676	3327	1500	961	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	94.68	1744.68	117.02	108.51	231.91	36.74	120.71	203.19	1539.36	90.43	24.47	178.72	26.6
s, Saturation Flow Rate	1676	3360	1515	1091	3427	1515	1515	1676	3327	1500	961	3427	1530
c, Capacity	335	1988	896	200	628	303	278	182	1664	750	176	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.28	0.88	0.13	0.54	0.37	0.12	0.43	1.12	0.93	0.12	0.14	0.28	0.09
d1, Uniform Delay	40.70	20.81	10.84	44.43	42.92	9.18	33.34	53.50	27.91	15.96	41.06	42.22	40.72
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.10	5.87	0.30	10.16	1.67	0.82	4.89	102.25	10.26	0.33	1.64	1.13	0.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.80	26.68	11.14	54.59	44.59	10.00	38.22	155.75	38.18	16.29	42.70	43.35	41.40
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	26.53			42.67				50.13			43.06		
Approach LOS	C			D				D			D		
dI, Intersection Delay	38.73												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.68	25.94	1.73	3.28	3.56	1.00	3.57	6.77	25.08	1.60	0.68	2.70	0.74
Q2, Second-term Queued	0.25	7.14	0.19	0.51	0.37	0.08	0.43	4.89	7.97	0.16	0.07	0.25	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	2.93	33.08	1.92	3.79	3.93	1.09	4.00	11.67	33.04	1.76	0.75	2.95	0.80
fB%, % Factor	1.78	1.50	1.84	1.73	1.73	1.90	1.72	1.55	1.50	1.85	1.93	1.78	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.21	49.64	3.53	6.58	6.79	2.07	6.90	18.07	49.58	3.26	1.45	5.24	1.53

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.52	0.08	0.10	0.07	0.02	0.08	0.12	0.46	0.06	0.03	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	8197	8198	8200	8192	8193	8195	8196	8188	8189	8191	8201	8202	8204
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				108.51							24.47		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.62							0.82		
Vo, Opposing Flow				178.72							231.91		
Volc, Adjusted Opposing F				3.28							4.26		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.67							3.48		
gu				20.33							18.52		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.49							1.58		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.62							0.53		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.62	1.00	1.00	1.00	0.95	1.00	1.00	0.53	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type	Signalized		
Method	HCM 2000		
Average Delay	48.76		
Average LOS	D		
V/C	0.96		
Loss Time	14		

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	272	1607	21	82	213	156	47	1539	47	7	243	54
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	71	418	5	21	55	41	12	401	12	2	63	14
Adjusted Volume	283	1674	22	85	222	163	49	1603	49	7	253	56

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	8221	8222	8224	8219	8215	8216	8218	8225
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283	1674	22	470	49	1603	49	317
PLT, Proportion Left Turns	1.00	0.00	0.00	0.18	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.18

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	8221	8222	8224	8219	8215	8216	8218	8225
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.751	0.950	1.000	1.000	0.944
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.948	1.000	1.000	0.850	0.973
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2324	1613	3360	1471	3029

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	8221	8222	8224	8219	8215	8216	8218	8225
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283.33	1673.96	21.88	469.79	48.96	1603.13	48.96	316.67
s, Saturation Flow Rate	1710	3327	1530	2324	1613	3360	1471	3029
c, Capacity	323	1869	859	532	149	1562	684	694
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.88	0.9	0.03	0.88	0.33	1.03	0.07	0.46
d1, Uniform Delay	47.28	23.20	11.70	44.69	50.96	32.10	17.76	39.81
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	26.60	7.17	0.05	18.72	5.78	29.66	0.20	2.16
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	73.88	30.37	11.75	63.41	56.74	61.76	17.97	41.97
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.40			63.41	60.36			41.97
Approach LOS	D			E	E			D
dI, Intersection Delay	48.76							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	8221	8222	8224	8219	8215	8216	8218	8225
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.18	25.85	0.32	7.95	1.53	28.07	0.90	4.77
Q2, Second-term Queued	2.85	7.48	0.03	2.62	0.18	12.73	0.08	0.57
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.03	33.33	0.36	10.57	1.70	40.80	0.99	5.34
fB%, % Factor	1.55	1.50	1.97	1.56	1.86	1.50	1.91	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.59	50.01	0.70	16.49	3.16	61.20	1.88	8.92

Signal Timing Information								
Approach	N			E	S			W
Lane Group	8221	8222	8224	8219	8215	8216	8218	8225
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.50	0.01	0.20	0.03	0.48	0.03	0.10
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	8221	8222	8224	8219	8215	8216	8218	8225
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				85.42				7.29
PLT, Proportion LT in Lane				0.18				0.02
PLTo, Proportion LT in Op				0.02				0.18
LT Volume per Cycle				2.85				0.24
Vo, Opposing Flow				316.67				469.79
Volc, Adjusted Opposing F				5.54				8.22
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.25				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				5.42				10.69
gu				22.08				11.53
PL				0.48				0.05
de facto caused by PL >=								
EL1				1.79				2.11
EL2				19.08				0.00
gdif				0.00				0.00
fm				0.59				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.75	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.2	
Worst Case Delay	25.53	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	59.00	419.00	37.00	61.00	398.00	129.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	64.84	460.44	40.66	67.03	437.36	141.76

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	64.84		40.66	67.03		
Conflicting Volume (Veh)	579.12		1098.35	508.24		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	579.12		1098.35	508.24		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	989.73		237.50	564.70		
Capacity	989.73		221.94	564.70		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	2.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.22		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.32		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	64.84	460.44	40.66	67.03	437.36	141.76
cmx, Capacity	989.73		221.94	564.70		
V / C	0.07		0.18	0.12		
d, Delay	8.89		25.53	15.68		
LOS	A		D	C		
dA, Approach Delay	1.10		19.40		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	64.84	460.44	107.69	579.12
Flared Storage Size				
cmx, Capacity			356.71	
V / C			0.30	
Q95, 95% Queue Length			1.25	
d, Delay			19.40	
LOS			C	
dA, Approach Delay	1.10		19.40	0.00
Approach LOS			C	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.7	
Average LOS	B	
V/C	0.45	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	83	109	365	84	162	445
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	96	22	43	117
Adjusted Volume	87	115	384	88	171	468

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	8242	8241	8243	8245
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	202	473	171	468
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.19	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	8242	8241	8243	8245
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.359
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1703	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	8242	8241	8243		8245
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	202.11	472.63	132	39	468.42
			171		
s, Saturation Flow Rate	1627	1703	1693	640	1748
			787		
c, Capacity	560	757	132	306	971
			437		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.36	0.62	1.00	0.13	0.48
			0.39		
d1, Uniform Delay	22.08	19.22	11.09		12.14
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.80	3.86	2.61		1.72
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	23.88	23.08	13.70		13.86
LOS	C	C	B		B
dA, Approach Delay	23.88	23.08	13.82		
Approach LOS	C	C	B		
dI, Intersection Delay	18.7				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	8242	8241	8243	8245
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.78	9.09	2.42	7.11
Q2, Second-term Queued	0.43	1.50	0.40	1.03
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.64	1.12
Q, Average Back of Queue	4.21	10.58	2.82	8.14
fB%, % Factor	1.72	1.56	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.22	16.51	5.04	13.00

Signal Timing Information

Approach	N	E	W	
Lane Group	8242	8241	8243	8245
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
Signal Type	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian Time	0	0	0	0
L, Total Loss Time per Cycle	4.50	4.50	4.50	4.50
I1, Start Up Loss Time	2.00	2.00	2	0
I1p, Permitted Start Up Loss Time	0.00	0.00	0	0
I2, Clearance Loss Time	2.50	2.50	0	2.5
Green Time Start	54.5	9	0	9
Green Time End	85.5	49	9	50
G, Actual Green Time	31	40	9	41
gi, Effective Green Time	31	40	7	43
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
(v/s)i, Volume / Saturation Flow	0.12	0.28	0.08	0.06
Critical Lane Group	Y	Y		

Left Turn Adjustment Factors for Permitted Phasing

Approach	N	E	W	
Lane Group	8242	8241	8243	8245
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
Subject is Single(S) or Multiple(M)				S
Opposed by Single(S) or Multiple(M)				M
C, Cycle Length				90.00
G(s), Actual GT				41.00
g(s), Eff. perm. GT				43.00
go(s), Opposing Eff. GT				40.00
No, Number Lanes in Opposing Flow				1
N, Number Left Lanes				1.00
VLT, Adj. LT Flow Rate				170.53
PLT, Proportion LT in Lane				1.00
PLTo, Proportion LT in Opposing Flow				0.00
LT Volume per Cycle				4.26
Vo, Opposing Flow				472.63
Volc, Adjusted Opposing Flow				11.82
FLUo, Opposing Lane Utilization				1.00
Rpo, Opposing Platoon Ratio				1.00
gf				0.00
qro, Opposing Queue Ratio				0.56
gq, Opposing Queue Clearance				13.30
gu				29.70
PL				1.00
de facto caused by PL >= 0.5				
EL1				1.92
EL2				0.00
gdifff				0.00
fm				0.36
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.36

Pedestrian and Bicycle Adjustment Factors

Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		6.73						
				Worst Case Delay		39.54						
				Worst Case LOS		E						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	27.00	379.00	64.00	12.00	40.00	51.00	22.00	288.00	26.00	41.00	58.00	35.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	29.67	416.48	70.33	13.19	43.96	56.04	24.18	316.48	28.57	45.05	63.74	38.46

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	29.67			13.19	43.96	56.04	24.18			45.05	63.74	38.46
Conflicting Volume (Veh)	345.05			941.21	925.27	330.77	486.81			940.11	904.40	451.65
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	345.05			941.21	925.27	330.77	486.81			940.11	904.40	451.65
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1186.55			245.31	271.01	710.80	1086.67			245.73	276.59	599.56
Capacity	1186.55			177.65	254.21	710.80	1086.67			187.27	259.45	599.56

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	29.67	416.48	70.33	13.19	43.96	56.04	24.18	316.48	28.57	45.05	63.74	38.46
cmx, Capacity	1186.55			177.65	254.21	710.80	1086.67			187.27	259.45	599.56
V / C	0.03			0.07	0.17	0.08	0.02			0.24	0.25	0.06
d, Delay	8.11			30.20	24.10	15.00	8.39			39.54	34.19	26.32
LOS	A			D	C	B	A			E	D	D
dA, Approach Delay	0.47			20.30			0.55			33.77		
Approach LOS				C						D		
dRank1, Rank 1 Delay	0.28						0.23					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	516.48	113.19	369.23	147.25
Flared Storage Size				
cmx, Capacity	1186.55	347.21	1086.67	267.54
V / C	0.44	0.33	0.34	0.55
Q95, 95% Queue Length	2.25	1.39	1.52	3.05
d, Delay	8.11	20.30	8.39	33.77
LOS	A	C	A	D
dA, Approach Delay	0.47	20.30	0.55	33.77
Approach LOS		C		D

Node 13764: Fuller & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.44	
Worst Case Delay	11.02	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	172.00	19.00	28.00	104.00	4.00	26.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	186.96	20.65	30.43	113.04	4.35	28.26

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			30.43		4.35	28.26
Conflicting Volume (Veh)			207.61		371.20	197.28
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			207.61		371.20	197.28
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1351.58		633.36	838.80
Capacity			1351.58		618.09	838.80

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			4.00		0.00	4.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.14		6.40	6.24
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.24		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	186.96	20.65	30.43	113.04	4.35	28.26
cmx, Capacity			1351.58		618.09	838.80
V / C			0.02		0.01	0.03
d, Delay			7.72		11.02	9.48
LOS			A		B	A
dA, Approach Delay	0.00		1.64		9.69	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.19			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	207.61	143.48	32.61
Flared Storage Size			
cmx, Capacity		1351.58	800.68
V / C		0.11	0.04
Q95, 95% Queue Length		0.36	0.13
d, Delay		7.72	9.69
LOS		A	A
dA, Approach Delay	0.00	1.64	9.69
Approach LOS			A

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.99								
Worst Case Delay				32.39								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	123.00	148.00	4.00	79.00	31.00	95.00	28.00	124.00	131.00	4.00	22.00	27.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	144.71	174.12	4.71	92.94	36.47	111.76	32.94	145.88	154.12	4.71	25.88	31.76

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	144.71			92.94	36.47	111.76	32.94			4.71	25.88	31.76
Conflicting Volume (Veh)	300.00			781.18	757.06	222.94	178.82			828.82	831.76	176.47
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	300.00			781.18	757.06	222.94	178.82			828.82	831.76	176.47
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1255.42			313.31	339.26	816.57	1409.11			292.16	307.15	861.51
Capacity	1255.42			249.54	291.63	816.57	1409.11			203.95	264.04	861.51

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	144.71	174.12	4.71	92.94	36.47	111.76	32.94	145.88	154.12	4.71	25.88	31.76
cmx, Capacity	1255.42			249.54	291.63	816.57	1409.11			203.95	264.04	861.51
V / C	0.12			0.37	0.13	0.14	0.02			0.02	0.10	0.04
d, Delay	8.24			32.39	30.30	10.11	7.62			24.35	20.34	10.88
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.69			21.75			0.75			15.82		
Approach LOS				C						C		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	144.71	178.82	129.41	111.76	332.94	62.35
Flared Storage Size						
cmx, Capacity			260.12		1409.11	394.71
V / C			0.50		0.24	0.16
Q95, 95% Queue Length			2.57		0.92	0.56
d, Delay			31.80		7.62	15.82
LOS			D		A	C
dA, Approach Delay	3.69		21.75		0.75	15.82
Approach LOS			C			C

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	1.19	
Worst Case Delay	14.85	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	34.00	16.00	289.00	42.00	18.00	296.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	36.17	17.02	307.45	44.68	19.15	314.89

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	36.17	17.02			19.15	
Conflicting Volume (Veh)	682.98	329.79			352.13	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	682.98	329.79			352.13	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	413.37	716.33			1217.88	
Capacity	405.39	716.33			1217.88	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	36.17	17.02	307.45	44.68	19.15	314.89
cmx, Capacity	405.39	716.33			1217.88	
V / C	0.09	0.02			0.02	
d, Delay	14.85	11.00			8.00	
LOS	B	B			A	
dA, Approach Delay	13.62		0.00		0.46	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.15	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	53.19	352.13	334.04
Flared Storage Size			
cmx, Capacity	470.79		1217.88
V / C	0.11		0.27
Q95, 95% Queue Length	0.38		1.12
d, Delay	13.62		8.00
LOS	B		A
dA, Approach Delay	13.62	0.00	0.46
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.62	
Worst Case Delay	22.44	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	33.00	413.00	4.00	23.00	640.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	33.67	421.43	4.08	23.47	653.06	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	33.67		4.08	23.47		
Conflicting Volume (Veh)	658.16		1144.39	655.61		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	658.16		1144.39	655.61		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	924.87		222.90	462.18		
Capacity	924.87		214.78	462.18		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	33.67	421.43	4.08	23.47	653.06	5.10
cmx, Capacity	924.87		214.78	462.18		
V / C	0.04		0.02	0.05		
d, Delay	9.04		22.44	13.47		
LOS	A		C	B		
dA, Approach Delay	0.67		14.80		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	33.67	421.43	27.55	658.16
Flared Storage Size				
cmx, Capacity			394.81	
V / C			0.07	
Q95, 95% Queue Length			0.22	
d, Delay			14.80	
LOS			B	
dA, Approach Delay	0.67		14.80	0.00
Approach LOS			B	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	8.21		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	52.00	9.00	5.00	87.00	10.00	6.00	45.00	5.00	10.00	128.00	19.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	55.32	9.57	5.32	92.55	10.64	6.38	47.87	5.32	10.64	136.17	20.21
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	89.36	108.51	59.57	167.02
Left Turn Flow Rate	24.47	5.32	6.38	10.64
Right Turn Flow Rate	9.57	10.64	5.32	20.21
PLT, Proportion LT	0.27	0.05	0.11	0.06
PRT, Proportion RT	0.11	0.10	0.09	0.12
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	89.36	108.51	59.57	167.02
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.10	0.05	0.15
hd, iteration 1	4.41	4.24	4.41	4.18
Difference, iteration 1	1.21	1.04	1.21	0.98
hd, iteration 2	4.57	4.38	4.58	4.30
Difference, iteration 2	0.16	0.14	0.17	0.13
hd, iteration 3	4.59	4.40	4.61	4.32
Difference, iteration 3	0.02	0.02	0.02	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.59	4.40	4.61	4.32
x final, Degree of Utilization	0.11	0.13	0.08	0.20

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	89.36	108.51	59.57	167.02
hd, Departure Headway	4.59	4.40	4.61	4.32
x, Degree of Utilization	0.11	0.13	0.08	0.20
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.59	2.40	2.61	2.32
Capacity	783.79	818.39	781.27	832.66
Delay	8.18	8.07	7.99	8.40
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.18	8.07	7.99	8.40
Approach LOS	A	A	A	A
Intersection Delay	8.21			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				16.31								
Average LOS				C								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	2.00	55.00	22.00	54.00	155.00	1.00	78.00	125.00	179.00	18.00	225.00	140.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	2.20	60.44	24.18	59.34	170.33	1.10	85.71	137.36	196.70	19.78	247.25	153.85
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	86.81	230.77	85.71	334.07	420.88
Left Turn Flow Rate	2.20	59.34	85.71	0.00	19.78
Right Turn Flow Rate	24.18	1.10	0.00	196.70	153.85
PLT, Proportion LT	0.03	0.26	1.00	0.00	0.05
PRT, Proportion RT	0.28	0.00	0.00	0.59	0.37
PHV, Proportion HV	2.78	2.73	1.00	1.59	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.11	0.09	0.52	-0.39	-0.19

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	86.81	230.77	85.71	334.07	420.88
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.08	0.21	0.08	0.30	0.37
hd, iteration 1	5.37	5.18	6.17	5.26	4.71
Difference, iteration 1	2.17	1.98	2.97	2.06	1.51
hd, iteration 2	6.27	5.93	6.78	5.86	5.37
Difference, iteration 2	0.90	0.75	0.61	0.60	0.66
hd, iteration 3	6.62	6.19	7.03	6.11	5.58
Difference, iteration 3	0.35	0.26	0.25	0.25	0.21
hd, iteration 4	6.75	6.29	7.12	6.20	5.66
Difference, iteration 4	0.12	0.10	0.08	0.08	0.08
hd, iteration 5	6.79	6.32	7.15	6.23	5.69
Difference, iteration 5	0.05	0.04	0.03	0.03	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.79	6.32	7.15	6.23	5.69
x final, Degree of Utilizatio	0.16	0.41	0.17	0.58	0.67

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	86.81	230.77	85.71	334.07	420.88
hd, Departure Headway	6.79	6.32	7.15	6.23	5.69
x, Degree of Utilization	0.16	0.41	0.17	0.58	0.67
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.79	4.32	4.85	3.93	3.69
Capacity	529.53	568.81	503.49	577.44	632.14
Delay	11.12	13.56	11.31	17.11	19.26
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.12	13.56	15.93		19.26
Approach LOS	B	B	C		C
Intersection Delay	16.31				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.8	
Worst Case Delay	25.03	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	129.00	130.00	133.00	104.00	298.00	182.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	131.63	132.65	135.71	106.12	304.08	185.71

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	131.63		135.71	106.12		
Conflicting Volume (Veh)	489.80		792.86	396.94		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	489.80		792.86	396.94		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1083.92		360.39	654.72		
Capacity	1083.92		312.92	654.72		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	131.63	132.65	135.71	106.12	304.08	185.71
cmx, Capacity	1083.92		312.92	654.72		
V / C	0.12		0.43	0.16		
d, Delay	8.78		25.03	11.56		
LOS	A		D	B		
dA, Approach Delay	4.37		19.12		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.16				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	264.29	135.71	106.12	489.80
Flared Storage Size				
cmx, Capacity	1083.92			
V / C	0.24			
Q95, 95% Queue Length	0.96			
d, Delay	8.78			
LOS	A			
dA, Approach Delay	4.37	19.12		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.47	
Worst Case Delay	14.55	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	44.00	22.00	257.00	30.00	9.00	288.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	49.44	24.72	288.76	33.71	10.11	323.60

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	49.44	24.72			10.11	
Conflicting Volume (Veh)	649.44	305.62			322.47	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	649.44	305.62			322.47	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	437.25	738.95			1248.74	
Capacity	432.88	738.95			1248.74	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	49.44	24.72	288.76	33.71	10.11	323.60
cmx, Capacity	432.88	738.95			1248.74	
V / C	0.11	0.03			0.01	
d, Delay	14.55	11.11			7.91	
LOS	B	B			A	
dA, Approach Delay	13.41		0.00		0.24	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	74.16	322.47	333.71
Flared Storage Size			
cmx, Capacity	502.22		1248.74
V / C	0.15		0.27
Q95, 95% Queue Length	0.51		1.08
d, Delay	13.41		7.91
LOS	B		A
dA, Approach Delay	13.41	0.00	0.24
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.57	
Average LOS		A	
V/C		0.55	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	48	191	140	42	250	17	62	106	14	111	400	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	13	51	38	11	67	5	17	28	4	30	108	1
Adjusted Volume	52	205	151	45	269	18	67	114	15	119	430	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	8272	8273	8270	8271	8276	8277	8274	8275
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	257	151	45	287	181	15	119	435
PLT, Proportion Left Turns	0.20	0.00	1.00	0.00	0.37	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	8272	8273	8270	8271	8276	8277	8274	8275
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.918	1.000	0.479	1.000	0.822	1.000	0.616	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1620	1485	862	1748	1465	1530	1027	1761

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	8272	8273	8270	8271	8276	8277	8274	8275
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	256.99	150.54	45.16	287.1	180.65	15.05	119.35	435.48
s, Saturation Flow Rate	1620	1485	862	1748	1465	1530	1027	1761
c, Capacity	486	446	374	757	439	459	445	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.53	0.34	0.12	0.38	0.41	0.03	0.27	0.57
d1, Uniform Delay	8.74	8.18	5.08	5.76	8.38	7.42	5.45	6.40
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.08	2.05	0.66	1.44	2.83	0.13	1.47	3.08
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.82	10.23	5.74	7.21	11.21	7.56	6.92	9.48
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	11.86		7.01		10.93		8.93	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.57							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	8272	8273	8270	8271	8276	8277	8274	8275
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.78	0.98	0.23	1.62	1.20	0.09	0.64	2.73
Q2, Second-term Queued	0.35	0.15	0.04	0.26	0.21	0.01	0.11	0.57
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.27	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.14	1.13	0.26	1.89	1.41	0.10	0.75	3.31
fB%, % Factor	1.83	1.90	1.97	1.84	1.88	1.99	1.93	1.76
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.90	2.15	0.52	3.48	2.64	0.20	1.44	5.81

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	8272	8273	8270	8271	8276	8277	8274	8275
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.16	0.10	0.05	0.16	0.12	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	8272	8273	8270	8271	8276	8277	8274	8275
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	51.61		45.16		66.67		119.35	
PLT, Proportion LT in Lane	0.20		1.00		0.37		1.00	
PLTo, Proportion LT in Op	0.34		0.00		0.13		0.00	
LT Volume per Cycle	0.43		0.38		0.56		0.99	
Vo, Opposing Flow	180.65		435.48		256.99		287.10	
Volc, Adjusted Opposing F	1.58		3.63		2.25		2.39	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.43		0.00		0.97		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.43		0.00		0.00	
gu	7.57		11.57		8.03		13.00	
PL	0.20		1.00		0.37		1.00	
de facto caused by PL >=								
EL1	1.54		1.86		1.68		1.62	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.92		0.48		0.82		0.62	
fLT, Left Turn Adjustment	0.92	1.00	0.48	1.00	0.82	1.00	0.62	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	21.52
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	118.00	209.00	32.00	30.00	11.00	24.00	263.00	27.00	330.00	44.00	46.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	124.21	220.00	33.68	31.58	11.58	25.26	276.84	28.42	347.37	46.32	48.42
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	137.89	220.00	65.26	11.58	330.53	393.68	48.42
Left Turn Flow Rate	13.68	0.00	33.68	0.00	25.26	347.37	0.00
Right Turn Flow Rate	0.00	220.00	0.00	11.58	28.42	0.00	48.42
PLT, Proportion LT	0.10	0.00	0.52	0.00	0.08	0.88	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.09	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.45	0.00	0.84	1.76	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.05	-0.65	0.28	-0.70	-0.02	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	137.89	220.00	65.26	11.58	330.53	393.68	48.42
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.12	0.20	0.06	0.01	0.29	0.35	0.04
hd, iteration 1	5.62	4.92	6.23	5.24	5.59	6.12	4.94
Difference, iteration 1	2.42	1.72	3.03	2.04	2.39	2.92	1.74
hd, iteration 2	6.63	5.92	7.37	6.37	6.49	6.86	5.68
Difference, iteration 2	1.01	1.00	1.15	1.14	0.90	0.74	0.73
hd, iteration 3	6.95	6.24	7.82	6.81	6.78	7.16	5.97
Difference, iteration 3	0.32	0.32	0.45	0.44	0.29	0.30	0.30
hd, iteration 4	7.07	6.36	7.97	6.97	6.89	7.26	6.07
Difference, iteration 4	0.12	0.12	0.15	0.15	0.11	0.10	0.10
hd, iteration 5	7.11	6.41	8.03	7.02	6.93	7.30	6.10
Difference, iteration 5	0.04	0.04	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.11	6.41	8.03	7.02	6.93	7.30	6.10
x final, Degree of Utilization	0.27	0.39	0.15	0.02	0.64	0.80	0.08

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				58.89								
Average LOS				E								
V/C				0.95								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	119	242	18	350	297	72	33	233	409	24	282	38
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	62	5	90	77	19	9	60	105	6	73	10
Adjusted Volume	123	249	19	361	306	74	34	240	422	25	291	39

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	8280	8281	8278	8279	8284	8285	8286	8282	8283
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123	268	361	380	274	112	309	25	330
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.12	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.07	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	8280	8281	8278	8279	8284	8285	8286	8282	8283
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.990	1.000	0.971	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1696	1676	1730	1754	1515	1515	1710	1768

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	8280	8281	8278	8279	8284	8285	8286	8282	8283
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	122.68	268.04	360.82	380.41	274.23	112.44	309.21	24.74	329.9
s, Saturation Flow Rate	1693	1696	1676	1730	1754	1515	1515	1710	1768
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.43	0.95	0.97	0.53	0.83	0.33	1.08	0.43	0.84
d1, Uniform Delay	33.69	37.11	34.69	20.00	35.09	7.84	26.77	42.67	33.47
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.82	41.71	39.35	2.87	20.63	2.66	76.35	22.27	19.00
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.51	78.82	74.04	22.88	55.72	10.50	103.12	64.94	52.46
LOS	D	E	E	C	E	B	F	E	D
dA, Approach Delay	66.16		47.78		69.47			53.33	
Approach LOS	E		D		E			D	
dI, Intersection Delay	58.89								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	8280	8281	8278	8279	8284	8285	8286	8282	8283
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.76	6.63	8.94	7.18	6.59	2.36	7.73	0.61	7.89
Q2, Second-term Queued	0.36	3.16	4.40	1.01	1.98	0.26	5.97	0.11	2.39
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.11	9.79	13.34	8.19	8.57	2.63	13.70	0.72	10.27
fB%, % Factor	1.77	1.57	1.53	1.60	1.59	1.80	1.53	1.93	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	15.38	20.47	13.08	13.63	4.72	20.99	1.39	16.07

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	8280	8281	8278	8279	8284	8285	8286	8282	8283
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
I1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.22	0.16	0.07	0.20	0.01	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	8280	8281	8278	8279	8284	8285	8286	8282	8283
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Re									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe									
Control Type				TWSC					
Method				HCM 2000					
dI, Average Delay				17.27					
Worst Case Delay				48.51					
Worst Case LOS				E					

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	186.00	59.00	135.00	302.00	81.00	208.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	206.67	65.56	150.00	335.56	90.00	231.11

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			206.67	65.56	150.00		90.00	231.11
Conflicting Volume (Veh)	335.56			460.56	300.00	0.00		635.56	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	335.56			460.56	300.00	0.00		635.56	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1235.03			509.40	615.71	1629.70		397.00	1087.94
Capacity	1235.03			302.09	559.04	1629.70		360.46	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	206.67	65.56	150.00	335.56	90.00	231.11
cmx, Capacity	1235.03			302.09	559.04	1629.70		360.46	1087.94
V / C	0.00			0.68	0.12	0.09		0.25	0.21
d, Delay	7.91			48.51	43.03	7.43		19.36	12.68
LOS	A			E	E	A		C	B
dA, Approach Delay	2.64			47.19		2.30		14.55	
Approach LOS				E				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	272.22	150.00	335.56	321.11
Flared Storage Size					
cmx, Capacity	1235.03	339.69			694.88
V / C	0.00	0.80			0.46
Q95, 95% Queue Length	0.00	6.73			2.45
d, Delay	2.64	47.19			14.55
LOS	A	E			B
dA, Approach Delay	2.64	47.19	2.30		14.55
Approach LOS		E			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.02	
Average LOS		A	
V/C		0.52	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	70	31	39	53	305	43	14	37	71	76	521	14
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	18	8	10	14	80	11	4	10	19	20	137	4
Adjusted Volume	74	33	41	56	321	45	15	39	75	80	548	15

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	8289	8290	8287	8288	8293	8294	8291	8292
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	106	41	56	366	54	75	80	563
PLT, Proportion Left Turns	0.69	0.00	1.00	0.00	0.27	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.12	0.00	1.00	0.00	0.03

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	8289	8290	8287	8288	8293	8294	8291	8292
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.813	1.000	0.425	1.000	0.900	1.000	0.573	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.981	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1464	1530	750	1699	1620	1530	1032	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	8289	8290	8287	8288	8293	8294	8291	8292
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	106.32	41.05	55.79	366.32	53.68	74.74	80	563.16
s, Saturation Flow Rate	1464	1530	750	1699	1620	1530	1032	1758
c, Capacity	244	255	438	991	270	255	602	1025
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.16	0.13	0.37	0.2	0.29	0.13	0.55
d1, Uniform Delay	13.48	12.84	3.38	3.98	12.93	13.14	3.39	4.60
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.57	1.35	0.60	1.06	1.65	2.90	0.46	2.12
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.05	14.19	3.98	5.05	14.57	16.04	3.85	6.71
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.70		4.90		15.43		6.36	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.02							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	8289	8290	8287	8288	8293	8294	8291	8292
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.96	0.35	0.25	1.95	0.46	0.65	0.36	3.45
Q2, Second-term Queued	0.17	0.04	0.05	0.35	0.06	0.10	0.06	0.74
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.42	0.61
Q, Average Back of Queue	1.13	0.40	0.30	2.29	0.52	0.75	0.43	4.19
fB%, % Factor	1.90	1.96	1.97	1.82	1.95	1.93	1.96	1.72
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.14	0.78	0.59	4.17	1.02	1.45	0.83	7.19

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	8289	8290	8287	8288	8293	8294	8291	8292
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.22	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	8289	8290	8287	8288	8293	8294	8291	8292
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	73.68		55.79		14.74		80.00	
PLT, Proportion LT in Lane	0.69		1.00		0.27		1.00	
PLTo, Proportion LT in Op	0.11		0.00		0.50		0.00	
LT Volume per Cycle	0.74		0.56		0.15		0.80	
Vo, Opposing Flow	53.68		563.16		106.32		366.32	
Volc, Adjusted Opposing F	0.56		5.63		1.12		3.66	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.14		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.33		0.00		0.00	
gu	6.00		18.67		5.86		21.00	
PL	0.69		1.00		0.27		1.00	
de facto caused by PL >=								
EL1	1.33		2.09		1.41		1.74	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.90		0.57	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.90	1.00	0.57	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.78								
Worst Case Delay				23.13								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	21.00	6.00	29.00	263.00	2.00	13.00	67.00	54.00	9.00	402.00	19.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	21.65	6.19	29.90	271.13	2.06	13.40	69.07	55.67	9.28	414.43	19.59

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	21.65	6.19	29.90			13.40	69.07	55.67	9.28		
Conflicting Volume (Veh)	837.11	784.54	272.16	434.02			788.66	775.77	424.23	273.20		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	837.11	784.54	272.16	434.02			788.66	775.77	424.23	273.20		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	288.42	317.89	771.39	1099.46			301.42	330.93	634.16	1301.68		
Capacity	212.28	304.64	771.39	1099.46			273.86	317.14	634.16	1301.68		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	21.65	6.19	29.90	271.13	2.06	13.40	69.07	55.67	9.28	414.43	19.59
cmx, Capacity	212.28	304.64	771.39	1099.46			273.86	317.14	634.16	1301.68		
V / C	0.00	0.07	0.01	0.03			0.05	0.22	0.09	0.01		
d, Delay	22.92	17.77	10.62	8.37			23.13	21.34	15.67	7.79		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.43			0.83			19.23			0.16		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.27						0.07		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	28.87	303.09	138.14	443.30
Flared Storage Size				
cmx, Capacity	343.89	1099.46	389.67	1301.68
V / C	0.08	0.28	0.35	0.34
Q95, 95% Queue Length	0.27	1.13	1.57	1.53
d, Delay	16.43	8.37	19.23	7.79
LOS	C	A	C	A
dA, Approach Delay	16.43	0.83	19.23	0.16
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.95								
Worst Case Delay				30.79								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	18.00	462.00	9.00	8.00	0.00	23.00	10.00	580.00	9.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	19.78	507.69	9.89	8.79	0.00	25.27	10.99	637.36	9.89

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	19.78			8.79	0.00	25.27	10.99		
Conflicting Volume (Veh)	1224.18	1221.43	512.64	647.25			1215.93	1221.43	642.31	517.58		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1224.18	1221.43	512.64	647.25			1215.93	1221.43	642.31	517.58		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	157.33	181.27	565.47	919.51			159.39	181.27	470.35	1008.68		
Capacity	145.22	175.44	565.47	919.51			151.77	175.44	470.35	1008.68		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	19.78	507.69	9.89	8.79	0.00	25.27	10.99	637.36	9.89
cmx, Capacity	145.22	175.44	565.47	919.51			151.77	175.44	470.35	1008.68		
V / C	0.03	0.02	0.01	0.02			0.06	0.00	0.05	0.01		
d, Delay	30.79	26.52	12.37	9.00			30.20	27.00	14.13	8.61		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	22.05			0.33			18.28			0.14		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	19.78	517.58	34.07	10.99	647.25
Flared Storage Size						
cmx, Capacity	224.35			305.08		
V / C	0.06			0.11		
Q95, 95% Queue Length	0.19			0.37		
d, Delay	22.05			18.28		
LOS	C			C		
dA, Approach Delay	22.05	0.33		18.28	0.14	
Approach LOS	C			C		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	13.33		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	43.00	79.00	95.00	3.00	76.00	36.00	7.00	51.00	3.00	211.00	134.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	51.19	94.05	113.10	3.57	90.48	42.86	8.33	60.71	3.57	251.19	159.52	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	136.90	72.62	429.76
Left Turn Flow Rate	51.19	3.57	8.33	251.19
Right Turn Flow Rate	113.10	42.86	3.57	19.05
PLT, Proportion LT	0.20	0.03	0.11	0.58
PRT, Proportion RT	0.44	0.31	0.05	0.04
PHV, Proportion HV	1.97	1.32	1.62	0.58
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.19	-0.16	0.02	0.10

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	136.90	72.62	429.76
hd initial	3.20	3.20	3.20	3.20
x initial	0.23	0.12	0.06	0.38
hd, iteration 1	4.72	4.67	5.12	4.68
Difference, iteration 1	1.52	1.47	1.92	1.48
hd, iteration 2	5.20	5.16	5.71	5.02
Difference, iteration 2	0.47	0.49	0.59	0.34
hd, iteration 3	5.32	5.31	5.87	5.13
Difference, iteration 3	0.12	0.14	0.16	0.11
hd, iteration 4	5.36	5.35	5.92	5.16
Difference, iteration 4	0.04	0.04	0.05	0.03
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.36	5.35	5.92	5.16
x final, Degree of Utilization	0.38	0.20	0.12	0.62

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	136.90	72.62	429.76
hd, Departure Headway	5.36	5.35	5.92	5.16
x, Degree of Utilization	0.38	0.20	0.12	0.62
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.36	3.35	3.92	3.16
Capacity	671.57	672.22	607.69	696.68
Delay	11.67	9.71	9.72	16.09
LOS	B	A	A	C
Q95, 95% Queue Length				
Approach Delay	11.67	9.71	9.72	16.09
Approach LOS	B	A	A	C
Intersection Delay	13.33			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.04	
Worst Case Delay	10.15	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	8.00	45.00	30.00	2.00	62.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	10.96	61.64	41.10	2.74	84.93

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			61.64		2.74	84.93
Conflicting Volume (Veh)			54.79		213.70	49.32
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			54.79		213.70	49.32
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1563.25		779.07	1024.90
Capacity			1563.25		747.59	1024.90

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	10.96	61.64	41.10	2.74	84.93
cmx, Capacity			1563.25		747.59	1024.90
V / C			0.04		0.00	0.08
d, Delay			7.40		10.15	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.44		8.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.30			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	54.79	102.74	87.67
Flared Storage Size			
cmx, Capacity		1563.25	1013.16
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.28
d, Delay		7.40	8.89
LOS		A	A
dA, Approach Delay	0.00	4.44	8.89
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	17.92	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	8.00	463.00	8.00	3.00	373.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	8.89	514.44	8.89	3.33	414.44	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	8.89		8.89	3.33		
Conflicting Volume (Veh)	422.22		950.56	418.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	422.22		950.56	418.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1085.36		290.84	639.01		
Capacity	1085.36		287.43	639.01		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	8.89	514.44	8.89	3.33	414.44	7.78
cmx, Capacity	1085.36		287.43	639.01		
V / C	0.01		0.03	0.01		
d, Delay	8.34		17.92	11.03		
LOS	A		C	B		
dA, Approach Delay	0.14		16.04		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.10				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	523.33	12.22	422.22
Flared Storage Size			
cmx, Capacity	1085.36	338.17	
V / C	0.48	0.04	
Q95, 95% Queue Length	2.69	0.11	
d, Delay	8.34	16.04	
LOS	A	C	
dA, Approach Delay	0.14	16.04	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	17.91	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	6.00	465.00	5.00	6.00	374.00	6.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	6.74	522.47	5.62	6.74	420.22	6.74

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	6.74		5.62	6.74		
Conflicting Volume (Veh)	426.97		959.55	423.60		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	426.97		959.55	423.60		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1143.21		287.29	634.68		
Capacity	1143.21		284.85	634.68		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	6.74	522.47	5.62	6.74	420.22	6.74
cmx, Capacity	1143.21		284.85	634.68		
V / C	0.01		0.02	0.01		
d, Delay	8.17		17.91	10.95		
LOS	A		C	B		
dA, Approach Delay	0.10		14.12		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.07				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	529.21	12.36	426.97
Flared Storage Size			
cmx, Capacity	1143.21	407.30	
V / C	0.46	0.03	
Q95, 95% Queue Length	2.50	0.09	
d, Delay	8.17	14.12	
LOS	A	B	
dA, Approach Delay	0.10	14.12	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.45	
Worst Case Delay	9.67	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	5.00	70.00	14.00	12.00	71.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	5.68	79.55	15.91	13.64	80.68

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	5.68			13.64	
Conflicting Volume (Veh)	195.45	87.50			95.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	195.45	87.50			95.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	797.88	923.43			1461.42	
Capacity	790.07	923.43			1461.42	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	5.68	79.55	15.91	13.64	80.68
cmx, Capacity	790.07	923.43			1461.42	
V / C	0.02	0.01			0.01	
d, Delay	9.67	9.02			7.49	
LOS	A	A			A	
dA, Approach Delay	9.50		0.00		1.08	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	21.59	95.45	94.32
Flared Storage Size			
cmx, Capacity	821.28		1461.42
V / C	0.03		0.06
Q95, 95% Queue Length	0.08		0.21
d, Delay	9.50		7.49
LOS	A		A
dA, Approach Delay	9.50	0.00	1.08
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.22	
Worst Case Delay	13.01	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	181.00	17.00	83.00	124.00	8.00	85.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	192.55	18.09	88.30	131.91	8.51	90.43

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			88.30		8.51	90.43
Conflicting Volume (Veh)			210.64		510.11	201.60
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			210.64		510.11	201.60
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1354.01		526.80	831.66
Capacity			1354.01		489.55	831.66

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	192.55	18.09	88.30	131.91	8.51	90.43
cmx, Capacity			1354.01		489.55	831.66
V / C			0.07		0.02	0.11
d, Delay			7.84		13.01	9.99
LOS			A		B	A
dA, Approach Delay	0.00		3.15		10.25	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.55			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	210.64	220.21	98.94
Flared Storage Size			
cmx, Capacity		1354.01	784.50
V / C		0.16	0.13
Q95, 95% Queue Length		0.58	0.43
d, Delay		7.84	10.25
LOS		A	B
dA, Approach Delay	0.00	3.15	10.25
Approach LOS			B

Scenario 2

2020 Baseline

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	62.76
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	266	72	98	314	18	64	247	64	115	467	92
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	69	19	26	82	5	17	64	17	30	122	24
Adjusted Volume	40	277	75	102	327	19	67	257	67	120	486	96

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	278	279	276	277	282	283	280	281
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	352	102	346	67	324	120	582
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.05	0.00	0.21	0.00	0.16

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	278	279	276	277	282	283	280	281
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.992	1.000	0.969	1.000	0.975
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1750	1644	1727	1676	1704

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	278	279	276	277	282	283	280	281
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	352.08	102.08	345.83	66.67	323.96	119.79	582.29
s, Saturation Flow Rate	1710	1725	1644	1750	1644	1727	1676	1704
c, Capacity	46	471	91	500	117	549	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.12	0.69	0.57	0.59	1	1.13
d1, Uniform Delay	27.15	18.58	26.45	17.80	25.16	16.04	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	96.79	10.33	130.93	7.65	18.38	4.61	82.34	81.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	28.92	157.38	25.45	43.55	20.64	108.34	100.89
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.52		55.52		24.55		102.16	
Approach LOS	D		E		C		F	
dI, Intersection Delay	62.76							
Intersection LOS	E							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	278	279	276	277	282	283	280	281
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.00	1.59	4.79	1.00	4.23	1.86	9.06
Q2, Second-term Queued	0.40	1.31	2.25	1.07	0.23	0.75	1.67	11.69
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.50	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.31	3.84	5.86	1.24	4.99	3.53	20.75
fB%, % Factor	1.91	1.64	1.73	1.65	1.89	1.68	1.75	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.36	6.65	9.70	2.34	8.40	6.17	31.29

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	278	279	276	277	282	283	280	281
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.04	0.19	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	278	279	276	277	282	283	280	281
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		16.13	
Average LOS		B	
V/C		0.77	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	7	1757	14	22	31	22	26	1620	12	24	26	86
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	472	4	6	8	6	7	435	3	6	7	23
Adjusted Volume	8	1889	15	24	33	24	28	1742	13	26	28	92

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	289	290	292	288	284	285	287	293
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	8	1889	15	81	28	1742	13	146
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.18
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.63

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	289	290	292	288	284	285	287	293
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.603	0.950	1.000	1.000	0.906
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.960	1.000	1.000	0.850	0.915
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1043	1710	3327	1530	1492

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	289	290	292	288	284	285	287	293
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	7.53	1889.25	15.05	80.65	27.96	1741.94	12.9	146.24
s, Saturation Flow Rate	1710	3327	1530	1043	1710	3327	1530	1492
c, Capacity	29	2440	1122	113	71	2523	1160	162
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.26	0.77	0.01	0.71	0.39	0.69	0.01	0.9
d1, Uniform Delay	58.27	9.87	4.31	51.70	56.02	7.35	3.53	52.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	21.30	2.47	0.02	31.87	15.44	1.57	0.02	49.24
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	79.57	12.34	4.33	83.57	71.46	8.93	3.55	102.13
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.54			83.57	9.87			102.13
Approach LOS	B			F	A			F
dI, Intersection Delay	16.13							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	289	290	292	288	284	285	287	293
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.25	20.41	0.14	2.60	0.91	15.47	0.10	4.82
Q2, Second-term Queued	0.04	5.01	0.02	0.65	0.14	3.55	0.02	1.88
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.30	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.29	25.41	0.16	3.25	1.05	19.02	0.12	6.70
fB%, % Factor	1.97	1.50	1.98	1.76	1.91	1.51	1.99	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.57	38.20	0.31	5.72	1.99	28.73	0.24	10.92

Signal Timing Information								
Approach	N			E	S			W
Lane Group	289	290	292	288	284	285	287	293
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.08	0.02	0.52	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	289	290	292	288	284	285	287	293
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				25.81
PLT, Proportion LT in Lane				0.29				0.18
PLTo, Proportion LT in Op				0.18				0.29
LT Volume per Cycle				0.79				0.86
Vo, Opposing Flow				146.24				80.65
Volc, Adjusted Opposing F				4.87				2.69
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.63				5.30
gu				2.37				7.70
PL				0.29				0.18
de facto caused by PL >=								
EL1				1.47				1.37
EL2				5.66				2.63
gdif				8.44				3.35
fm				0.60				0.91
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.60	0.95	1.00	1.00	0.91

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.21								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	88	1664	110	106	224	148	194	1474	87	22	169	30
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	23	443	29	28	60	39	52	392	23	6	45	8
Adjusted Volume	94	1770	117	113	238	157	206	1568	93	23	180	32

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	303	304	306	298	299	301	302	294	295	297	307	308	310
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	94	1770	117	113	238	37	121	206	1568	93	23	180	32
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	303	304	306	298	299	301	302	294	295	297	307	308	310
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.617	1.000	1.000	1.000	0.950	1.000	1.000	0.524	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1088	3427	1515	1515	1676	3327	1500	944	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	303	304	306	298	299	301	302	294	295	297	307	308	310
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	93.62	1770.21	117.02	112.77	238.3	36.74	120.71	206.38	1568.09	92.55	23.4	179.79	31.91
s, Saturation Flow Rate	1676	3360	1515	1088	3427	1515	1515	1676	3327	1500	944	3427	1530
c, Capacity	335	1988	896	200	628	303	278	182	1664	750	173	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.28	0.89	0.13	0.57	0.38	0.12	0.43	1.14	0.94	0.12	0.14	0.29	0.11
d1, Uniform Delay	40.67	21.14	10.84	44.64	43.01	9.18	33.34	53.50	28.37	15.99	41.03	42.23	40.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.07	6.50	0.30	11.09	1.74	0.82	4.89	108.20	12.09	0.34	1.62	1.14	0.82
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.74	27.65	11.14	55.74	44.75	10.00	38.22	161.70	40.46	16.32	42.66	43.38	41.69
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.38			43.13				52.67			43.08		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.21												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	303	304	306	298	299	301	302	294	295	297	307	308	310
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.64	26.75	1.73	3.42	3.66	1.00	3.57	6.88	25.96	1.64	0.65	2.71	0.89
Q2, Second-term Queued	0.25	7.63	0.19	0.56	0.39	0.08	0.43	5.20	8.72	0.16	0.06	0.26	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	2.89	34.38	1.92	3.98	4.05	1.09	4.00	12.08	34.68	1.80	0.72	2.97	0.96
fB%, % Factor	1.78	1.50	1.84	1.73	1.72	1.90	1.72	1.54	1.50	1.85	1.93	1.78	1.91
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.15	51.58	3.53	6.87	6.97	2.07	6.90	18.65	52.04	3.34	1.39	5.27	1.84

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	303	304	306	298	299	301	302	294	295	297	307	308	310
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.10	0.07	0.02	0.08	0.12	0.47	0.06	0.02	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	303	304	306	298	299	301	302	294	295	297	307	308	310
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				112.77							23.40		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.76							0.78		
Vo, Opposing Flow				179.79							238.30		
Volc, Adjusted Opposing F				3.30							4.37		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.70							3.71		
gu				20.30							18.29		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.50							1.59		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.62							0.52		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.62	1.00	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.82	
Average LOS		D	
V/C		0.97	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	279	1638	21	80	218	161	48	1567	50	7	247	54
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	73	427	5	21	57	42	13	408	13	2	64	14
Adjusted Volume	291	1706	22	83	227	168	50	1632	52	7	257	56

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	327	328	330	325	321	322	324	331
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	291	1706	22	478	50	1632	52	321
PLT, Proportion Left Turns	1.00	0.00	0.00	0.17	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.18

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	327	328	330	325	321	322	324	331
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.754	0.950	1.000	1.000	0.944
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.947	1.000	1.000	0.850	0.974
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2332	1613	3360	1471	3030

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	327	328	330	325	321	322	324	331
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	290.63	1706.25	21.88	478.13	50	1632.29	52.08	320.83
s, Saturation Flow Rate	1710	3327	1530	2332	1613	3360	1471	3030
c, Capacity	323	1869	859	534	149	1562	684	694
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.9	0.91	0.03	0.89	0.34	1.04	0.08	0.46
d1, Uniform Delay	47.52	23.66	11.70	44.85	50.99	32.10	17.80	39.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	29.80	8.33	0.05	20.09	5.96	35.42	0.22	2.21
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	77.32	31.99	11.75	64.94	56.95	67.52	18.02	42.08
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.30			64.94	65.73			42.08
Approach LOS	D			E	E			D
dI, Intersection Delay	51.82							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	327	328	330	325	321	322	324	331
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.46	26.87	0.32	8.12	1.56	28.58	0.96	4.84
Q2, Second-term Queued	3.17	8.19	0.03	2.78	0.18	13.94	0.09	0.58
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.63	35.06	0.36	10.90	1.74	42.52	1.05	5.42
fB%, % Factor	1.54	1.50	1.97	1.56	1.85	1.50	1.91	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.45	52.61	0.70	16.96	3.23	63.78	2.00	9.05

Signal Timing Information								
Approach	N			E	S			W
Lane Group	327	328	330	325	321	322	324	331
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation Flow	0.17	0.51	0.01	0.21	0.03	0.49	0.04	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	327	328	330	325	321	322	324	331
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Multiple(M)				M				M
Opposed by Single(S) or Multiple(M)				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opposing Flow				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				83.33				7.29
PLT, Proportion LT in Lane				0.17				0.02
PLTo, Proportion LT in Opposing Flow				0.02				0.17
LT Volume per Cycle				2.78				0.24
Vo, Opposing Flow				320.83				478.13
Volc, Adjusted Opposing Flow				5.62				8.37
FLUo, Opposing Lane Utilization				0.95				0.95
Rpo, Opposing Platoon Ratio				1.00				1.00
gf				0.39				15.97
qro, Opposing Queue Ratio				0.77				0.77
gq, Opposing Queue Clearance				5.55				11.00
gu				21.95				11.53
PL				0.46				0.05
de facto caused by PL >= 0.4								
EL1				1.80				2.13
EL2				19.11				0.00
gdifff				0.00				0.00
fm				0.60				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.75	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.09
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	425.00	55.00	381.00	154.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	467.03	60.44	418.68	169.23

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		503.30		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		503.30		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		568.34		
Capacity		568.34		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	467.03	60.44	418.68	169.23
cmx, Capacity		568.34		
V / C		0.11		
d, Delay		12.09		
LOS		B		
dA, Approach Delay	0.00	12.09	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	467.03	60.44	587.91
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.09	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.16	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	336	85	166	412
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	88	22	44	108
Adjusted Volume	89	118	354	89	175	434

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	348	347	349	351
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	443	175	434
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate					
Approach	N	E	W		
Lane Group	348	347	349		351
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800		1800
N, Number of Lanes	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000		3.000
fHV, HV Adjustment	1.000	0.971	0.990		0.971
fg, Grade Adjustment	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.387	1.000
fRT, Right Turn Adjustment	0.923	0.973	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000		1.000
Has Short Lane					
s, Saturation Flow Rate	1627	1700	1693	690	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	348	347	349		351
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	443.16	132	43	433.68
			175		
s, Saturation Flow Rate	1627	1700	1693	690	1748
			830		
c, Capacity	560	756	132	330	971
			461		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.59	1.00	0.13	0.45
			0.38		
d1, Uniform Delay	22.16	18.79	10.86		11.82
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	3.32	2.36		1.49
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.11	13.22		13.31
LOS	C	C	B		B
dA, Approach Delay	24.04	22.11	13.29		
Approach LOS	C	C	B		
dI, Intersection Delay	18.16				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	348	347	349	351
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.33	2.46	6.41
Q2, Second-term Queued	0.44	1.29	0.40	0.89
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.61	2.86	7.30
fB%, % Factor	1.71	1.57	1.78	1.62
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.12	5.10	11.80

Signal Timing Information					
Approach	N	E	W		
Lane Group	348	347	349		351
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.25
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	348	347	349	351	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				443.16	
Volc, Adjusted Opposing Flow				11.08	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.83	
gu				31.17	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
		Control Type		TWSC								
		Method		HCM 2000								
		dI, Average Delay		7.72								
		Worst Case Delay		51.07								
		Worst Case LOS		F								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	41.00	399.00	63.00	0.00	68.00	70.00	23.00	296.00	27.00	25.00	66.00	31.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	45.05	438.46	69.23	0.00	74.73	76.92	25.27	325.27	29.67	27.47	72.53	34.07

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	45.05			0.00	74.73	76.92	25.27			27.47	72.53	34.07
Conflicting Volume (Veh)	354.95			1007.14	988.46	340.11	507.69			1029.67	968.68	473.08
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	354.95			1007.14	988.46	340.11	507.69			1029.67	968.68	473.08
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1176.55			221.31	248.90	702.28	1067.58			213.64	253.62	583.01
Capacity	1176.55			148.59	228.27	702.28	1067.58			133.49	232.60	583.01

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	45.05	438.46	69.23	0.00	74.73	76.92	25.27	325.27	29.67	27.47	72.53	34.07
cmx, Capacity	1176.55			148.59	228.27	702.28	1067.58			133.49	232.60	583.01
V / C	0.04			0.00	0.33	0.11	0.02			0.21	0.31	0.06
d, Delay	8.18			37.03	28.58	17.93	8.45			51.07	39.58	30.28
LOS	A			E	D	C	A			F	E	D
dA, Approach Delay	0.67			23.18			0.56			39.57		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.45						0.25					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	552.75	151.65	380.22	134.07
Flared Storage Size				
cmx, Capacity	1176.55	347.11	1067.58	232.74
V / C	0.47	0.44	0.36	0.58
Q95, 95% Queue Length	2.57	2.14	1.63	3.23
d, Delay	8.18	23.18	8.45	39.57
LOS	A	C	A	E
dA, Approach Delay	0.67	23.18	0.56	39.57
Approach LOS		C		E

Node 13764: Fuller & Monroe												
			Control Type		TWSC							
			Method		HCM 2000							
			dI, Average Delay		8.91							
			Worst Case Delay		13.33							
			Worst Case LOS		B							

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	113.00	20.00	80.00	20.00	15.00	10.00	35.00	64.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	122.83	21.74	86.96	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	122.83	21.74	86.96			10.87	38.04	69.57	5.43		
Conflicting Volume (Veh)	292.93	247.28	29.89	32.61			311.41	247.28	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	292.93	247.28	29.89	32.61			311.41	247.28	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	663.29	655.16	1036.06	1592.47			637.21	656.88	1057.68	1585.26		
Capacity	564.08	616.40	1036.06	1592.47			505.16	618.03	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	122.83	21.74	86.96	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30
cmx, Capacity	564.08	616.40	1036.06	1592.47			505.16	618.03	1057.68	1585.26		
V / C	0.04	0.20	0.02	0.05			0.02	0.06	0.07	0.00		
d, Delay	13.33	12.78	10.42	7.39			12.92	11.61	9.19	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.55			5.14			10.31			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.41						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	166.30	125.00	118.48	38.04
Flared Storage Size				
cmx, Capacity	642.64	1592.47	795.98	1585.26
V / C	0.26	0.08	0.15	0.02
Q95, 95% Queue Length	1.03	0.26	0.52	0.07
d, Delay	12.55	7.39	10.31	7.28
LOS	B	A	B	A
dA, Approach Delay	12.55	5.14	10.31	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.39								
Worst Case Delay				33.78								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	131.00	4.00	81.00	31.00	97.00	29.00	124.00	137.00	5.00	20.00	49.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	145.88	161.18	5.88	23.53	57.65

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			95.29	36.47	114.12	34.12			5.88	23.53	57.65
Conflicting Volume (Veh)	307.06			781.18	745.29	226.47	158.82			818.24	823.53	156.47
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	307.06			781.18	745.29	226.47	158.82			818.24	823.53	156.47
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1247.93			313.31	344.59	812.88	1432.94			296.99	310.55	883.88
Capacity	1247.93			243.64	295.47	812.88	1432.94			206.38	266.28	883.88

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	145.88	161.18	5.88	23.53	57.65
cmx, Capacity	1247.93			243.64	295.47	812.88	1432.94			206.38	266.28	883.88
V / C	0.12			0.39	0.12	0.14	0.02			0.03	0.09	0.07
d, Delay	8.27			33.78	31.19	10.15	7.57			24.11	20.19	10.74
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.96			22.43			0.76			14.20		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	158.82	131.76	114.12	341.18	87.06
Flared Storage Size						
cmx, Capacity			256.07		1432.94	478.11
V / C			0.51		0.24	0.18
Q95, 95% Queue Length			2.71		0.93	0.66
d, Delay			33.06		7.57	14.20
LOS			D		A	B
dA, Approach Delay	3.96		22.43		0.76	14.20
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.21	
Worst Case Delay	15.18	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	35.00	16.00	293.00	43.00	19.00	308.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	37.23	17.02	311.70	45.74	20.21	327.66

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	37.23	17.02			20.21	
Conflicting Volume (Veh)	702.66	334.57			357.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	702.66	334.57			357.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	402.52	711.93			1212.42	
Capacity	394.21	711.93			1212.42	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	37.23	17.02	311.70	45.74	20.21	327.66
cmx, Capacity	394.21	711.93			1212.42	
V / C	0.09	0.02			0.02	
d, Delay	15.18	11.11			8.02	
LOS	C	B			A	
dA, Approach Delay	13.91		0.00		0.47	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	54.26	357.45	347.87
Flared Storage Size			
cmx, Capacity	458.39		1212.42
V / C	0.12		0.29
Q95, 95% Queue Length	0.40		1.19
d, Delay	13.91		8.02
LOS	B		A
dA, Approach Delay	13.91	0.00	0.47
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.64	
Worst Case Delay	22.41	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	396.00	5.00	23.00	657.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	404.08	5.10	23.47	670.41	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	675.51		1140.31	672.96		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	675.51		1140.31	672.96		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	911.19		224.15	451.74		
Capacity	911.19		216.37	451.74		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	404.08	5.10	23.47	670.41	5.10
cmx, Capacity	911.19		216.37	451.74		
V / C	0.03		0.02	0.05		
d, Delay	9.09		22.41	13.75		
LOS	A		C	B		
dA, Approach Delay	0.66		15.29		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	404.08	28.57	675.51
Flared Storage Size				
cmx, Capacity			378.26	
V / C			0.08	
Q95, 95% Queue Length			0.24	
d, Delay			15.29	
LOS			C	
dA, Approach Delay	0.66		15.29	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				8.3								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	53.00	9.00	5.00	115.00	12.00	6.00	45.00	5.00	10.00	121.00	19.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	56.38	9.57	5.32	122.34	12.77	6.38	47.87	5.32	10.64	128.72	20.21
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	140.43	59.57	159.57
Left Turn Flow Rate	24.47	5.32	6.38	10.64
Right Turn Flow Rate	9.57	12.77	5.32	20.21
PLT, Proportion LT	0.27	0.04	0.11	0.07
PRT, Proportion RT	0.11	0.09	0.09	0.13
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	140.43	59.57	159.57
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.12	0.05	0.14
hd, iteration 1	4.45	4.23	4.45	4.20
Difference, iteration 1	1.25	1.03	1.25	1.00
hd, iteration 2	4.63	4.38	4.64	4.34
Difference, iteration 2	0.18	0.14	0.19	0.14
hd, iteration 3	4.65	4.40	4.67	4.36
Difference, iteration 3	0.03	0.02	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.65	4.40	4.67	4.36
x final, Degree of Utilization	0.12	0.17	0.08	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	140.43	59.57	159.57
hd, Departure Headway	4.65	4.40	4.67	4.36
x, Degree of Utilization	0.12	0.17	0.08	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.65	2.40	2.67	2.36
Capacity	773.92	818.14	770.80	824.99
Delay	8.26	8.31	8.06	8.40
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.26	8.31	8.06	8.40
Approach LOS	A	A	A	A
Intersection Delay	8.3			
Intersection LOS	A			

Node 14275: 37th & Monroe					
Control Type			AWSC		
Method			HCM 2000		
Average Delay			16.49		
Average LOS			C		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	3.00	58.00	22.00	56.00	159.00	1.00	75.00	126.00	179.00	14.00	224.00	144.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	3.30	63.74	24.18	61.54	174.73	1.10	82.42	138.46	196.70	15.38	246.15	158.24
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	91.21	237.36	82.42	335.16	419.78
Left Turn Flow Rate	3.30	61.54	82.42	0.00	15.38
Right Turn Flow Rate	24.18	1.10	0.00	196.70	158.24
PLT, Proportion LT	0.04	0.26	1.00	0.00	0.04
PRT, Proportion RT	0.27	0.00	0.00	0.59	0.38
PHV, Proportion HV	2.72	2.73	1.00	1.59	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.11	0.10	0.52	-0.38	-0.20

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	91.21	237.36	82.42	335.16	419.78
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.08	0.21	0.07	0.30	0.37
hd, iteration 1	5.39	5.18	6.19	5.28	4.71
Difference, iteration 1	2.19	1.98	2.99	2.08	1.51
hd, iteration 2	6.30	5.94	6.80	5.89	5.38
Difference, iteration 2	0.91	0.76	0.62	0.61	0.67
hd, iteration 3	6.66	6.21	7.06	6.15	5.60
Difference, iteration 3	0.36	0.27	0.26	0.26	0.22
hd, iteration 4	6.79	6.31	7.15	6.23	5.69
Difference, iteration 4	0.13	0.10	0.09	0.09	0.09
hd, iteration 5	6.84	6.35	7.19	6.27	5.72
Difference, iteration 5	0.05	0.04	0.03	0.03	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.84	6.35	7.19	6.27	5.72
x final, Degree of Utilizatio	0.17	0.42	0.16	0.58	0.67

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	91.21	237.36	82.42	335.16	419.78
hd, Departure Headway	6.84	6.35	7.19	6.27	5.72
x, Degree of Utilization	0.17	0.42	0.16	0.58	0.67
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.84	4.35	4.89	3.97	3.72
Capacity	525.79	566.29	500.46	574.10	628.85
Delay	11.27	13.85	11.30	17.37	19.42
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.27	13.85	16.18		19.42
Approach LOS	B	B	C		C
Intersection Delay	16.49				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	5.85	
Worst Case Delay	26.46	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	135.00	137.00	131.00	99.00	304.00	186.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	137.76	139.80	133.67	101.02	310.20	189.80

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	137.76		133.67	101.02		
Conflicting Volume (Veh)	500.00		820.41	405.10		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	500.00		820.41	405.10		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1074.57		347.19	647.84		
Capacity	1074.57		298.69	647.84		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	137.76	139.80	133.67	101.02	310.20	189.80
cmx, Capacity	1074.57		298.69	647.84		
V / C	0.13		0.45	0.16		
d, Delay	8.84		26.46	11.58		
LOS	A		D	B		
dA, Approach Delay	4.39		20.06		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.24				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	277.55	133.67	101.02	500.00
Flared Storage Size				
cmx, Capacity	1074.57			
V / C	0.26			
Q95, 95% Queue Length	1.03			
d, Delay	8.84			
LOS	A			
dA, Approach Delay	4.39	20.06		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.46	
Worst Case Delay	14.81	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	261.00	31.00	8.00	300.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	293.26	34.83	8.99	337.08

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			8.99	
Conflicting Volume (Veh)	665.73	310.67			328.09	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	665.73	310.67			328.09	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	427.79	734.16			1242.83	
Capacity	423.93	734.16			1242.83	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	293.26	34.83	8.99	337.08
cmx, Capacity	423.93	734.16			1242.83	
V / C	0.12	0.03			0.01	
d, Delay	14.81	11.22			7.92	
LOS	B	B			A	
dA, Approach Delay	13.63		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	328.09	346.07
Flared Storage Size			
cmx, Capacity	492.23		1242.83
V / C	0.15		0.28
Q95, 95% Queue Length	0.54		1.15
d, Delay	13.63		7.92
LOS	B		A
dA, Approach Delay	13.63	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.57	
Average LOS		A	
V/C		0.56	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	40	197	141	44	260	18	58	109	19	113	411	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	11	53	38	12	70	5	16	29	5	30	110	1
Adjusted Volume	43	212	152	47	280	19	62	117	20	122	442	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	378	379	376	377	382	383	380	381
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	255	152	47	299	180	20	122	447
PLT, Proportion Left Turns	0.17	0.00	1.00	0.00	0.35	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	378	379	376	377	382	383	380	381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.933	1.000	0.466	1.000	0.834	1.000	0.610	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1646	1485	838	1748	1486	1530	1016	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	378	379	376	377	382	383	380	381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	254.84	151.61	47.31	298.92	179.57	20.43	121.51	447.31
s, Saturation Flow Rate	1646	1485	838	1748	1486	1530	1016	1762
c, Capacity	494	446	363	757	446	459	440	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.52	0.34	0.13	0.39	0.4	0.04	0.28	0.59
d1, Uniform Delay	8.70	8.19	5.10	5.81	8.36	7.45	5.47	6.46
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.82	2.07	0.74	1.54	2.70	0.18	1.55	3.28
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.52	10.25	5.85	7.35	11.06	7.63	7.02	9.74
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	11.67		7.15		10.71		9.16	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.57							
Intersection LOS	A							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	378	379	376	377	382	383	380	381
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.76	0.98	0.24	1.70	1.19	0.12	0.65	2.83
Q2, Second-term Queued	0.34	0.15	0.04	0.28	0.20	0.01	0.11	0.61
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.10	1.14	0.28	1.99	1.39	0.14	0.76	3.44
fB%, % Factor	1.83	1.90	1.97	1.84	1.88	1.99	1.93	1.75
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.84	2.16	0.54	3.65	2.62	0.27	1.48	6.03

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	378	379	376	377	382	383	380	381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.15	0.10	0.06	0.17	0.12	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	378	379	376	377	382	383	380	381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	43.01		47.31		62.37		121.51	
PLT, Proportion LT in Lane	0.17		1.00		0.35		1.00	
PLTo, Proportion LT in Op	0.31		0.00		0.11		0.00	
LT Volume per Cycle	0.36		0.39		0.52		1.01	
Vo, Opposing Flow	179.57		447.31		254.84		298.92	
Volc, Adjusted Opposing F	1.57		3.73		2.23		2.49	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.73		0.00		1.09		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.62		0.00		0.00	
gu	7.27		11.38		7.91		13.00	
PL	0.17		1.00		0.35		1.00	
de facto caused by PL >=								
EL1	1.54		1.88		1.67		1.64	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.93		0.47		0.83		0.61	
fLT, Left Turn Adjustment	0.93	1.00	0.47	1.00	0.83	1.00	0.61	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	21.46
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	117.00	193.00	32.00	51.00	11.00	25.00	257.00	27.00	329.00	44.00	49.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	123.16	203.16	33.68	53.68	11.58	26.32	270.53	28.42	346.32	46.32	51.58
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	136.84	203.16	87.37	11.58	325.26	392.63	51.58
Left Turn Flow Rate	13.68	0.00	33.68	0.00	26.32	346.32	0.00
Right Turn Flow Rate	0.00	203.16	0.00	11.58	28.42	0.00	51.58
PLT, Proportion LT	0.10	0.00	0.39	0.00	0.08	0.88	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.09	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.84	0.00	0.83	1.76	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.05	-0.65	0.22	-0.70	-0.02	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	136.84	203.16	87.37	11.58	325.26	392.63	51.58
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.12	0.18	0.08	0.01	0.29	0.35	0.05
hd, iteration 1	5.65	4.95	6.13	5.20	5.61	6.11	4.93
Difference, iteration 1	2.45	1.75	2.93	2.00	2.41	2.91	1.73
hd, iteration 2	6.68	5.98	7.26	6.32	6.53	6.86	5.68
Difference, iteration 2	1.03	1.02	1.13	1.12	0.92	0.76	0.75
hd, iteration 3	7.02	6.31	7.71	6.76	6.83	7.18	5.99
Difference, iteration 3	0.34	0.33	0.45	0.44	0.30	0.31	0.31
hd, iteration 4	7.15	6.44	7.87	6.92	6.95	7.28	6.09
Difference, iteration 4	0.13	0.13	0.16	0.15	0.12	0.10	0.10
hd, iteration 5	7.20	6.49	7.92	6.97	6.99	7.32	6.13
Difference, iteration 5	0.05	0.05	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.20	6.49	7.92	6.97	6.99	7.32	6.13
x final, Degree of Utilization	0.27	0.37	0.19	0.02	0.63	0.80	0.09

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				61.73								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	119	247	17	357	303	74	34	238	416	27	291	40
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	64	4	92	78	19	9	61	107	7	75	10
Adjusted Volume	123	255	18	368	312	76	35	245	429	28	300	41

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	386	387	384	385	390	391	392	388	389
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123	272	368	389	280	114	315	28	341
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.06	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	386	387	384	385	390	391	392	388	389
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.990	1.000	0.971	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1698	1676	1730	1754	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	386	387	384	385	390	391	392	388	389
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	122.68	272.16	368.04	388.66	280.41	114.36	314.5	27.84	341.24
s, Saturation Flow Rate	1693	1698	1676	1730	1754	1515	1515	1710	1767
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.43	0.96	0.99	0.55	0.85	0.34	1.1	0.49	0.87
d1, Uniform Delay	33.69	37.22	34.88	20.13	35.24	7.85	26.77	42.75	33.74
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	4.82	44.59	43.70	3.01	22.58	2.73	82.38	26.98	22.09
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.51	81.81	78.58	23.14	57.82	10.58	109.14	69.72	55.83
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	68.35		50.10		72.96			56.88	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.73								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	386	387	384	385	390	391	392	388	389
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.76	6.75	9.17	7.38	6.77	2.41	7.86	0.68	8.22
Q2, Second-term Queued	0.36	3.39	4.86	1.06	2.17	0.27	6.45	0.14	2.75
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.11	10.14	14.03	8.44	8.94	2.68	14.31	0.83	10.98
fB%, % Factor	1.77	1.57	1.53	1.59	1.58	1.79	1.53	1.92	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	15.88	21.46	13.44	14.15	4.80	21.87	1.59	17.08

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	386	387	384	385	390	391	392	388	389
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.22	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	386	387	384	385	390	391	392	388	389
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe									
Control Type				TWSC					
Method				HCM 2000					
dI, Average Delay				19.23					
Worst Case Delay				56.35					
Worst Case LOS				F					

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	189.00	56.00	142.00	301.00	81.00	215.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	210.00	62.22	157.78	334.44	90.00	238.89

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			210.00	62.22	157.78		90.00	238.89
Conflicting Volume (Veh)	334.44			480.00	315.56	0.00		650.00	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	334.44			480.00	315.56	0.00		650.00	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1236.19			494.48	603.55	1629.70		389.52	1087.94
Capacity	1236.19			287.79	545.12	1629.70		351.81	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	210.00	62.22	157.78	334.44	90.00	238.89
cmx, Capacity	1236.19			287.79	545.12	1629.70		351.81	1087.94
V / C	0.00			0.73	0.11	0.10		0.26	0.22
d, Delay	7.91			56.35	50.44	7.45		19.86	12.93
LOS	A			F	F	A		C	B
dA, Approach Delay	2.64			55.00		2.39		14.83	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	272.22	157.78	334.44	328.89
Flared Storage Size					
cmx, Capacity	1236.19	322.60			691.82
V / C	0.00	0.84			0.48
Q95, 95% Queue Length	0.00	7.43			2.57
d, Delay	2.64	55.00			14.83
LOS	A	F			B
dA, Approach Delay	2.64	55.00	2.39		14.83
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.04	
Average LOS		A	
V/C		0.52	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	286	45	15	37	71	78	521	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	75	12	4	10	19	21	137	3
Adjusted Volume	75	33	42	56	301	47	16	39	75	82	548	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	395	396	393	394	399	400	397	398
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	348	55	75	82	562
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.14	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.426	1.000	0.894	1.000	0.583	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.980	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	752	1695	1610	1530	1049	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	348.42	54.74	74.74	82.11	562.11
s, Saturation Flow Rate	1461	1530	752	1695	1610	1530	1049	1758
c, Capacity	244	255	438	989	268	255	612	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.35	0.2	0.29	0.13	0.55
d1, Uniform Delay	13.49	12.85	3.38	3.93	12.94	13.14	3.39	4.59
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.60	0.99	1.71	2.90	0.46	2.11
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	3.97	4.92	14.65	16.04	3.85	6.70
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.79		15.45		6.34	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.04							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	395	396	393	394	399	400	397	398
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.83	0.47	0.65	0.37	3.44
Q2, Second-term Queued	0.17	0.05	0.05	0.32	0.06	0.10	0.07	0.73
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.43	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.15	0.53	0.75	0.44	4.18
fB%, % Factor	1.90	1.96	1.97	1.83	1.95	1.93	1.96	1.72
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	3.93	1.04	1.45	0.86	7.17

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.21	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		562.11		107.37		348.42	
Volc, Adjusted Opposing F	0.57		5.62		1.13		3.48	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.31		0.00		0.00	
gu	6.00		18.69		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.09		1.42		1.72	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.74								
Worst Case Delay				23.98								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	29.00	276.00	2.00	14.00	66.00	52.00	11.00	406.00	25.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	29.90	284.54	2.06	14.43	68.04	53.61	11.34	418.56	25.77

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	29.90			14.43	68.04	53.61	11.34		
Conflicting Volume (Veh)	860.31	812.37	285.57	444.33			812.37	800.52	431.44	286.60		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	860.31	812.37	285.57	444.33			812.37	800.52	431.44	286.60		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	278.22	306.20	758.23	1089.77			290.45	320.22	628.26	1287.07		
Capacity	204.00	292.56	758.23	1089.77			264.14	305.96	628.26	1287.07		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	29.90	284.54	2.06	14.43	68.04	53.61	11.34	418.56	25.77
cmx, Capacity	204.00	292.56	758.23	1089.77			264.14	305.96	628.26	1287.07		
V / C	0.01	0.07	0.01	0.03			0.05	0.22	0.09	0.01		
d, Delay	23.58	18.24	10.68	8.40			23.98	22.11	16.08	7.82		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.70			0.79			19.93			0.19		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	316.49	136.08	455.67
Flared Storage Size				
cmx, Capacity	334.37	1089.77	375.55	1287.07
V / C	0.08	0.29	0.36	0.35
Q95, 95% Queue Length	0.26	1.21	1.62	1.62
d, Delay	16.70	8.40	19.93	7.82
LOS	C	A	C	A
dA, Approach Delay	16.70	0.79	19.93	0.19
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.76								
Worst Case Delay				29.54								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	22.00	432.00	9.00	10.00	0.00	0.00	10.00	578.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	24.18	474.73	9.89	10.99	0.00	0.00	10.99	635.16	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	24.18			10.99	0.00	0.00	10.99		
Conflicting Volume (Veh)	1185.16	1196.15	479.67	646.15			1190.11	1195.60	640.66	484.62		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1185.16	1196.15	479.67	646.15			1190.11	1195.60	640.66	484.62		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	167.32	187.66	590.21	920.38			166.02	187.81	471.37	1037.88		
Capacity	162.65	180.80	590.21	920.38			157.67	180.94	471.37	1037.88		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	24.18	474.73	9.89	10.99	0.00	0.00	10.99	635.16	10.99
cmx, Capacity	162.65	180.80	590.21	920.38			157.67	180.94	471.37	1037.88		
V / C	0.03	0.02	0.01	0.03			0.07	0.00	0.00	0.01		
d, Delay	27.99	25.77	11.96	9.02			29.54	26.60	14.34	8.51		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	20.76			0.43			29.54			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	24.18	484.62	10.99	10.99	646.15
Flared Storage Size						
cmx, Capacity	241.66			157.67		
V / C	0.05			0.07		
Q95, 95% Queue Length	0.17			0.22		
d, Delay	20.76			29.54		
LOS	C			D		
dA, Approach Delay	20.76	0.43		29.54	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	13.47		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	43.00	80.00	94.00	4.00	84.00	36.00	7.00	56.00	3.00	218.00	126.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	51.19	95.24	111.90	4.76	100.00	42.86	8.33	66.67	3.57	259.52	150.00	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	147.62	78.57	428.57
Left Turn Flow Rate	51.19	4.76	8.33	259.52
Right Turn Flow Rate	111.90	42.86	3.57	19.05
PLT, Proportion LT	0.20	0.03	0.11	0.61
PRT, Proportion RT	0.43	0.29	0.05	0.04
PHV, Proportion HV	1.97	1.35	1.50	0.61
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.19	-0.14	0.02	0.10

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	147.62	78.57	428.57
hd initial	3.20	3.20	3.20	3.20
x initial	0.23	0.13	0.07	0.38
hd, iteration 1	4.75	4.70	5.13	4.70
Difference, iteration 1	1.55	1.50	1.93	1.50
hd, iteration 2	5.24	5.20	5.74	5.06
Difference, iteration 2	0.49	0.51	0.61	0.36
hd, iteration 3	5.37	5.36	5.91	5.18
Difference, iteration 3	0.13	0.15	0.17	0.12
hd, iteration 4	5.41	5.40	5.97	5.21
Difference, iteration 4	0.04	0.04	0.05	0.03
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.41	5.40	5.97	5.21
x final, Degree of Utilization	0.39	0.22	0.13	0.62

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	258.33	147.62	78.57	428.57
hd, Departure Headway	5.41	5.40	5.97	5.21
x, Degree of Utilization	0.39	0.22	0.13	0.62
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.41	3.40	3.97	3.21
Capacity	664.75	666.30	602.79	690.57
Delay	11.81	9.93	9.86	16.35
LOS	B	A	A	C
Q95, 95% Queue Length				
Approach Delay	11.81	9.93	9.86	16.35
Approach LOS	B	A	A	C
Intersection Delay	13.47			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.14	
Worst Case Delay	10.19	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	29.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	39.73	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		2.74	86.30
Conflicting Volume (Veh)			53.42		217.12	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		217.12	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		775.59	1025.79
Capacity			1565.04		742.92	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	39.73	2.74	86.30
cmx, Capacity			1565.04		742.92	1025.79
V / C			0.04		0.00	0.08
d, Delay			7.40		10.19	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.58		8.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	104.11	89.04
Flared Storage Size			
cmx, Capacity		1565.04	1013.91
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.29
d, Delay		7.40	8.89
LOS		A	A
dA, Approach Delay	0.00	4.58	8.89
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	18.46	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	491.00	13.00	1.00	382.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	545.56	14.44	1.11	424.44	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		14.44	1.11		
Conflicting Volume (Veh)	432.22		973.89	428.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	432.22		973.89	428.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1076.00		281.72	630.80		
Capacity	1076.00		281.72	630.80		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	545.56	14.44	1.11	424.44	7.78
cmx, Capacity	1076.00		281.72	630.80		
V / C	0.00		0.05	0.00		
d, Delay	8.35		18.46	11.39		
LOS	A		C	B		
dA, Approach Delay	0.00		17.96		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	545.56	15.56	432.22
Flared Storage Size			
cmx, Capacity	0.00	293.31	
V / C	0.00	0.05	
Q95, 95% Queue Length	0.00	0.17	
d, Delay	4.17	17.96	
LOS	A	C	
dA, Approach Delay	0.00	17.96	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	18.85	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	497.00	5.00	6.00	384.00	6.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	558.43	5.62	6.74	431.46	6.74

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		5.62	6.74		
Conflicting Volume (Veh)	438.20		1008.99	434.83		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	438.20		1008.99	434.83		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1132.38		268.51	625.52		
Capacity	1132.38		265.73	625.52		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	558.43	5.62	6.74	431.46	6.74
cmx, Capacity	1132.38		265.73	625.52		
V / C	0.01		0.02	0.01		
d, Delay	8.20		18.85	11.06		
LOS	A		C	B		
dA, Approach Delay	0.11		14.60		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.08				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	566.29	12.36	438.20
Flared Storage Size			
cmx, Capacity	1132.38	387.21	
V / C	0.50	0.03	
Q95, 95% Queue Length	2.88	0.10	
d, Delay	8.20	14.60	
LOS	A	B	
dA, Approach Delay	0.11	14.60	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.13	
Worst Case Delay	10.31	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	120.00	15.00	19.00	89.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	136.36	17.05	21.59	101.14

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			21.59	
Conflicting Volume (Veh)	289.20	144.89			153.41	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	289.20	144.89			153.41	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	705.62	856.88			1391.20	
Capacity	693.98	856.88			1391.20	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	136.36	17.05	21.59	101.14
cmx, Capacity	693.98	856.88			1391.20	
V / C	0.02	0.00			0.02	
d, Delay	10.31	9.32			7.63	
LOS	B	A			A	
dA, Approach Delay	10.31		0.00		1.34	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.13	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	153.41	122.73
Flared Storage Size			
cmx, Capacity	693.98		1391.20
V / C	0.02		0.09
Q95, 95% Queue Length	0.07		0.29
d, Delay	10.31		7.63
LOS	B		A
dA, Approach Delay	10.31	0.00	1.34
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.57	
Worst Case Delay	13.84	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	163.00	82.00	95.00	114.00	26.00	86.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	173.40	87.23	101.06	121.28	27.66	91.49

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			101.06		27.66	91.49
Conflicting Volume (Veh)			260.64		540.43	217.02
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			260.64		540.43	217.02
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1297.97		505.93	815.32
Capacity			1297.97		463.51	815.32

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	173.40	87.23	101.06	121.28	27.66	91.49
cmx, Capacity			1297.97		463.51	815.32
V / C			0.08		0.06	0.11
d, Delay			8.01		13.84	10.49
LOS			A		B	B
dA, Approach Delay	0.00		3.64		11.27	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.67			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	260.64	222.34	119.15
Flared Storage Size			
cmx, Capacity		1297.97	693.18
V / C		0.17	0.17
Q95, 95% Queue Length		0.62	0.62
d, Delay		8.01	11.27
LOS		A	B
dA, Approach Delay	0.00	3.64	11.27
Approach LOS			B

Scenario 3

Concept Plan Traffic Calming on Monroe [No Diverters]

Node 10386: King Rd & Linwood Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		67.12	
Average LOS		E	
V/C		0.97	
Loss Time		16	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	95	387	0	87	271	75	120	476	98
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	101	0	23	71	20	31	124	26
Adjusted Volume	41	269	82	99	403	0	91	282	78	125	496	102

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	6138	6139	6136	6137	6142	6143	6140	6141
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	99	403	91	360	125	598
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.22	0.00	0.17

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	6138	6139	6136	6137	6142	6143	6140	6141
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.967	1.000	0.974
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1724	1676	1703

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	6138	6139	6136	6137	6142	6143	6140	6141
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	98.96	403.13	90.63	360.42	125	597.92
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1724	1676	1703
c, Capacity	46	470	91	504	117	548	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.09	0.8	0.77	0.66	1.04	1.16
d1, Uniform Delay	27.17	18.58	26.45	18.52	25.55	16.47	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	119.93	12.50	37.85	6.07	94.47	93.25
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	146.38	31.02	63.40	22.54	120.47	112.80
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		53.76		30.75		114.13	
Approach LOS	D		D		C		F	
dI, Intersection Delay	67.12							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	6138	6139	6136	6137	6142	6143	6140	6141
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.54	5.81	1.39	4.84	1.94	9.30
Q2, Second-term Queued	0.44	1.31	1.96	1.77	0.53	0.99	2.06	13.38
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.50	7.58	1.92	5.83	4.01	22.68
fB%, % Factor	1.90	1.64	1.75	1.61	1.84	1.66	1.72	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.12	12.20	3.53	9.65	6.91	34.14

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	6138	6139	6136	6137	6142	6143	6140	6141
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.21	0.07	0.35
Critical Lane Group					Y	Y	Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	6138	6139	6136	6137	6142	6143	6140	6141
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		14.62	
Average LOS		B	
V/C		0.75	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	9	1769	0	21	28	23	19	1630	13	24	12	77
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	476	0	6	8	6	5	438	3	6	3	21
Adjusted Volume	10	1902	0	23	30	25	20	1753	14	26	13	83

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	6149	6150	6152	6148	6144	6145	6147	6153
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	10	1902	0	77	20	1753	14	122
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.21
PRT, Proportion Right Turns	0.00	0.00	0.00	0.32	0.00	0.00	1.00	0.68

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	6149	6150	6152	6148	6144	6145	6147	6153
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.709	0.950	1.000	1.000	0.896
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.957	1.000	1.000	0.850	0.908
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1220	1710	3327	1530	1464

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	6149	6150	6152	6148	6144	6145	6147	6153
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	9.68	1902.15	0	77.42	20.43	1752.69	13.98	121.51
s, Saturation Flow Rate	1710	3327	1530	1220	1710	3327	1530	1464
c, Capacity	29	2440	1122	132	71	2523	1160	159
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.34	0.78	0	0.59	0.29	0.69	0.01	0.77
d1, Uniform Delay	58.35	9.96	4.27	50.94	55.77	7.40	3.54	52.02
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	29.54	2.54	0.00	17.58	9.85	1.60	0.02	29.14
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	87.88	12.50	4.27	68.52	65.62	9.01	3.56	81.16
LOS	F	B	A	E	E	A	A	F
dA, Approach Delay	12.89			68.52	9.61			81.16
Approach LOS	B			E	A			F
dI, Intersection Delay	14.62							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	6149	6150	6152	6148	6144	6145	6147	6153
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.32	20.73	0.00	2.46	0.66	15.67	0.11	3.94
Q2, Second-term Queued	0.06	5.13	0.00	0.45	0.09	3.61	0.02	1.03
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.34	0.22	1.70	1.55	0.38
Q, Average Back of Queue	0.38	25.86	0.00	2.91	0.75	19.28	0.13	4.97
fB%, % Factor	1.96	1.50	2.00	1.78	1.93	1.51	1.99	1.69
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.74	38.87	0.00	5.17	1.44	29.13	0.26	8.38

Signal Timing Information								
Approach	N			E	S			W
Lane Group	6149	6150	6152	6148	6144	6145	6147	6153
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.01	0.57	0.00	0.06	0.01	0.53	0.01	0.08
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	6149	6150	6152	6148	6144	6145	6147	6153
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				22.58				25.81
PLT, Proportion LT in Lane				0.29				0.21
PLTo, Proportion LT in Op				0.21				0.29
LT Volume per Cycle				0.75				0.86
Vo, Opposing Flow				121.51				77.42
Volc, Adjusted Opposing F				4.05				2.58
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.33				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				8.71				5.01
gu				4.29				7.99
PL				0.29				0.21
de facto caused by PL >=								
EL1				1.43				1.36
EL2				4.70				2.62
gdif				6.37				3.07
fm				0.71				0.90
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.71	0.95	1.00	1.00	0.90

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.18								
Average LOS				D								
V/C				0.82								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	76	1649	135	76	214	149	198	1477	87	21	164	43
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	20	439	36	20	57	40	53	393	23	6	44	11
Adjusted Volume	81	1754	144	81	228	159	211	1571	93	22	174	46

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	81	1754	144	81	228	37	122	211	1571	93	22	174	46
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.625	1.000	1.000	1.000	0.950	1.000	1.000	0.541	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1104	3427	1515	1515	1676	3327	1500	973	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	80.85	1754.26	143.62	80.85	227.66	36.99	121.52	210.64	1571.28	92.55	22.34	174.47	45.74
s, Saturation Flow Rate	1676	3360	1515	1104	3427	1515	1515	1676	3327	1500	973	3427	1530
c, Capacity	335	1988	896	202	628	303	278	182	1664	750	178	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.24	0.88	0.16	0.4	0.36	0.12	0.44	1.16	0.94	0.12	0.13	0.28	0.16
d1, Uniform Delay	40.35	20.93	11.05	43.18	42.86	9.18	33.36	53.50	28.42	15.99	40.96	42.16	41.25
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.70	6.09	0.38	5.79	1.62	0.82	4.95	116.36	12.32	0.34	1.44	1.10	1.25
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.04	27.03	11.43	48.97	44.48	10.01	38.30	169.86	40.74	16.32	42.40	43.26	42.50
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	26.51			40.92				54.05			43.04		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.18												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.27	26.24	2.16	2.37	3.49	1.01	3.60	7.02	26.06	1.64	0.62	2.63	1.28
Q2, Second-term Queued	0.21	7.32	0.25	0.30	0.36	0.08	0.43	5.61	8.81	0.16	0.06	0.25	0.11
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.46	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	2.47	33.56	2.41	2.67	3.85	1.09	4.03	12.63	34.87	1.80	0.68	2.87	1.40
fB%, % Factor	1.81	1.50	1.81	1.79	1.73	1.90	1.72	1.54	1.50	1.85	1.94	1.78	1.88
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	4.46	50.36	4.35	4.79	6.66	2.08	6.95	19.46	52.33	3.34	1.32	5.12	2.62

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.05	0.52	0.09	0.07	0.07	0.02	0.08	0.13	0.47	0.06	0.02	0.05	0.03
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	6163	6164	6166	6158	6159	6161	6162	6154	6155	6157	6167	6168	6170
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				80.85							22.34		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				2.70							0.74		
Vo, Opposing Flow				174.47							227.66		
Volc, Adjusted Opposing F				3.20							4.18		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.53							3.34		
gu				20.47							18.66		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.49							1.57		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.63							0.54		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.63	1.00	1.00	1.00	0.95	1.00	1.00	0.54	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		53.26	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	287	1630	21	86	219	152	48	1577	48	7	259	55
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	75	424	5	22	57	40	13	411	13	2	67	14
Adjusted Volume	299	1698	22	90	228	158	50	1643	50	7	270	57

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	6187	6188	6190	6185	6181	6182	6184	6191
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	299	1698	22	476	50	1643	50	334
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.33	0.00	0.00	1.00	0.17

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	6187	6188	6190	6185	6181	6182	6184	6191
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.730	0.950	1.000	1.000	0.945
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.950	1.000	1.000	0.850	0.974
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2264	1613	3360	1471	3034

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	6187	6188	6190	6185	6181	6182	6184	6191
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	298.96	1697.92	21.88	476.04	50	1642.71	50	334.38
s, Saturation Flow Rate	1710	3327	1530	2264	1613	3360	1471	3034
c, Capacity	323	1869	859	519	149	1562	684	695
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.92	0.91	0.03	0.92	0.34	1.05	0.07	0.48
d1, Uniform Delay	47.80	23.54	11.70	45.14	50.99	32.10	17.78	40.07
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	33.99	8.01	0.05	23.61	5.96	37.62	0.21	2.38
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	81.79	31.55	11.75	68.76	56.95	69.72	17.99	42.44
LOS	F	C	B	E	E	E	B	D
dA, Approach Delay	38.77			68.76	67.87			42.44
Approach LOS	D			E	E			D
dI, Intersection Delay	53.26							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	6187	6188	6190	6185	6181	6182	6184	6191
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.79	26.61	0.32	8.13	1.56	28.76	0.92	5.07
Q2, Second-term Queued	3.57	8.00	0.03	3.02	0.18	14.39	0.08	0.62
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.63	1.38	1.26	0.56	0.37	1.22	1.07	0.69
Q, Average Back of Queue	13.36	34.60	0.36	11.15	1.74	43.15	1.01	5.69
fB%, % Factor	1.53	1.50	1.97	1.55	1.85	1.50	1.91	1.66
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90
% Back of Queue	20.51	51.92	0.70	17.33	3.23	64.73	1.92	9.45

Signal Timing Information								
Approach	N			E	S			W
Lane Group	6187	6188	6190	6185	6181	6182	6184	6191
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.03	0.49	0.03	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	6187	6188	6190	6185	6181	6182	6184	6191
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				89.58				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.99				0.24
Vo, Opposing Flow				334.38				476.04
Volc, Adjusted Opposing F				5.85				8.33
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.00				10.92
gu				21.50				11.53
PL				0.51				0.05
de facto caused by PL >=								
EL1				1.82				2.13
EL2				21.77				0.00
gdifff				0.00				0.00
fm				0.55				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.73	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.66
Worst Case Delay	12.08
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	420.00	55.00	381.00	153.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	461.54	60.44	418.68	168.13

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		502.75		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		502.75		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		568.75		
Capacity		568.75		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	461.54	60.44	418.68	168.13
cmx, Capacity		568.75		
V / C		0.11		
d, Delay		12.08		
LOS		B		
dA, Approach Delay	0.00	12.08	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	461.54	60.44	586.81
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.08	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.66	
Average LOS	B	
V/C	0.45	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	361	85	166	429
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	95	22	44	113
Adjusted Volume	89	118	380	89	175	452

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	6208	6207	6209	6211
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	469	175	452
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.19	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	6208	6207	6209	6211
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.362
fRT, Right Turn Adjustment	0.923	0.974	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1703	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	6208	6207	6209	6211
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	469.47	132	43
			175	451.58
s, Saturation Flow Rate	1627	1703	1693	1748
			792	1748
c, Capacity	560	757	132	308
			440	971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
X, Volume / Capacity	0.37	0.62	1.00	0.14
			0.40	0.47
d1, Uniform Delay	22.16	19.18	11.09	11.99
k, Delay Calibration	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.87	3.80	2.67	1.60
d3, Initial Queue Delay	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	0.56
PF, Progression Factor	1.00	1.00	1.00	1.00
d, Delay	24.04	22.98	13.76	13.59
LOS	C	C	B	B
dA, Approach Delay	24.04	22.98	13.64	
Approach LOS	C	C	B	
dI, Intersection Delay	18.66			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	6208	6207	6209	6211
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.00	2.49	6.77
Q2, Second-term Queued	0.44	1.48	0.42	0.96
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.64	1.12
Q, Average Back of Queue	4.34	10.48	2.91	7.72
fB%, % Factor	1.71	1.56	1.78	1.61
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	16.36	5.18	12.41

Signal Timing Information					
Approach	N	E	W		
Lane Group	6208	6207	6209		6211
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.26
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	6208	6207	6209		6211
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				469.47	
Volc, Adjusted Opposing Flow				11.74	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.14	
gu				29.86	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.92	
EL2				0.00	
gdifff				0.00	
fm				0.36	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.36	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		3.73						
				Worst Case Delay		27.37						
				Worst Case LOS		D						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	36.00	385.00	30.00	14.00	0.00	101.00	6.00	307.00	23.00	12.00	36.00	40.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	39.56	423.08	32.97	15.38	0.00	110.99	6.59	337.36	25.27	13.19	39.56	43.96

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	39.56			15.38	0.00	110.99	6.59			13.19	39.56	43.96
Conflicting Volume (Veh)	362.64			923.63	898.35	350.00	456.04			937.36	894.51	439.56
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	362.64			923.63	898.35	350.00	456.04			937.36	894.51	439.56
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1168.83			252.13	280.98	693.37	1115.39			246.79	280.30	609.09
Capacity	1168.83			198.93	265.97	693.37	1115.39			198.82	265.32	609.09

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	39.56	423.08	32.97	15.38	0.00	110.99	6.59	337.36	25.27	13.19	39.56	43.96
cmx, Capacity	1168.83			198.93	265.97	693.37	1115.39			198.82	265.32	609.09
V / C	0.03			0.08	0.00	0.16	0.01			0.07	0.15	0.07
d, Delay	8.19			25.19	20.63	12.28	8.25			27.37	22.83	15.18
LOS	A			D	C	B	A			D	C	C
dA, Approach Delay	0.65			13.86			0.15			19.97		
Approach LOS				B						C		
dRank1, Rank 1 Delay	0.38						0.06					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	495.60	126.37	369.23	96.70
Flared Storage Size				
cmx, Capacity	1168.83	532.30	1115.39	336.25
V / C	0.42	0.24	0.33	0.29
Q95, 95% Queue Length	2.15	0.92	1.46	1.17
d, Delay	8.19	13.86	8.25	19.97
LOS	A	B	A	C
dA, Approach Delay	0.65	13.86	0.15	19.97
Approach LOS		B		C

Node 13764: Fuller & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		8.91						
				Worst Case Delay		13.44						
				Worst Case LOS		B						

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	25.00	106.00	22.00	85.00	20.00	15.00	8.00	35.00	58.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	27.17	115.22	23.91	92.39	21.74	16.30	8.70	38.04	63.04	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	27.17	115.22	23.91	92.39			8.70	38.04	63.04	5.43		
Conflicting Volume (Veh)	300.54	258.15	29.89	32.61			319.57	258.15	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	300.54	258.15	29.89	32.61			319.57	258.15	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	655.72	646.11	1036.06	1592.47			629.38	647.83	1057.68	1585.26		
Capacity	559.29	605.64	1036.06	1592.47			500.60	607.25	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	27.17	115.22	23.91	92.39	21.74	16.30	8.70	38.04	63.04	5.43	16.30	16.30
cmx, Capacity	559.29	605.64	1036.06	1592.47			500.60	607.25	1057.68	1585.26		
V / C	0.05	0.19	0.02	0.06			0.02	0.06	0.06	0.00		
d, Delay	13.44	12.94	10.47	7.40			12.93	11.67	9.15	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.67			5.24			10.32			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.44						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	166.30	130.43	109.78	38.04
Flared Storage Size				
cmx, Capacity	634.97	1592.47	786.27	1585.26
V / C	0.26	0.08	0.14	0.02
Q95, 95% Queue Length	1.05	0.27	0.48	0.07
d, Delay	12.67	7.40	10.32	7.28
LOS	B	A	B	A
dA, Approach Delay	12.67	5.24	10.32	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.54								
Worst Case Delay				35.36								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	123.00	136.00	6.00	83.00	37.00	89.00	28.00	128.00	147.00	6.00	12.00	52.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	144.71	160.00	7.06	97.65	43.53	104.71	32.94	150.59	172.94	7.06	14.12	61.18

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	144.71			97.65	43.53	104.71	32.94			7.06	14.12	61.18
Conflicting Volume (Veh)	323.53			790.00	759.41	237.06	167.06			830.00	842.35	163.53
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	323.53			790.00	759.41	237.06	167.06			830.00	842.35	163.53
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1230.62			309.06	338.20	801.91	1423.08			291.62	302.84	875.92
Capacity	1230.62			245.60	289.90	801.91	1423.08			200.36	259.59	875.92

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	144.71	160.00	7.06	97.65	43.53	104.71	32.94	150.59	172.94	7.06	14.12	61.18
cmx, Capacity	1230.62			245.60	289.90	801.91	1423.08			200.36	259.59	875.92
V / C	0.12			0.40	0.15	0.13	0.02			0.04	0.05	0.07
d, Delay	8.31			35.36	33.12	10.16	7.59			24.29	20.19	10.43
LOS	A			E	D	B	A			C	C	B
dA, Approach Delay	3.86			24.23			0.70			13.29		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	144.71	167.06	141.18	104.71	356.47	82.35
Flared Storage Size						
cmx, Capacity			257.75		1423.08	516.46
V / C			0.55		0.25	0.16
Q95, 95% Queue Length			3.01		1.00	0.56
d, Delay			34.67		7.59	13.29
LOS			D		A	B
dA, Approach Delay	3.86		24.23		0.70	13.29
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.4	
Worst Case Delay	16.6	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	33.00	23.00	315.00	50.00	34.00	324.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	35.11	24.47	335.11	53.19	36.17	344.68

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	35.11	24.47			36.17	
Conflicting Volume (Veh)	778.72	361.70			388.30	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	778.72	361.70			388.30	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	363.10	687.48			1181.22	
Capacity	349.16	687.48			1181.22	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	35.11	24.47	335.11	53.19	36.17	344.68
cmx, Capacity	349.16	687.48			1181.22	
V / C	0.10	0.04			0.03	
d, Delay	16.60	11.53			8.14	
LOS	C	B			A	
dA, Approach Delay	14.52		0.00		0.77	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.31	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	59.57	388.30	380.85
Flared Storage Size			
cmx, Capacity	437.61		1181.22
V / C	0.14		0.32
Q95, 95% Queue Length	0.47		1.41
d, Delay	14.52		8.14
LOS	B		A
dA, Approach Delay	14.52	0.00	0.77
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.6	
Worst Case Delay	27.3	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	488.00	4.00	23.00	731.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	34.69	497.96	4.08	23.47	745.92	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	34.69		4.08	23.47		
Conflicting Volume (Veh)	751.02		1315.82	748.47		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	751.02		1315.82	748.47		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	853.86		175.75	408.87		
Capacity	853.86		168.61	408.87		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	34.69	497.96	4.08	23.47	745.92	5.10
cmx, Capacity	853.86		168.61	408.87		
V / C	0.04		0.02	0.06		
d, Delay	9.39		27.30	14.75		
LOS	A		D	B		
dA, Approach Delay	0.61		16.61		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	34.69	497.96	27.55	751.02
Flared Storage Size				
cmx, Capacity			337.60	
V / C			0.08	
Q95, 95% Queue Length			0.26	
d, Delay			16.61	
LOS			C	
dA, Approach Delay	0.61		16.61	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.32		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	54.00	7.00	5.00	0.00	8.00	2.00	48.00	3.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	57.45	7.45	5.32	0.00	8.51	2.13	51.06	3.19	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	13.83	56.38	23.40
Left Turn Flow Rate	22.34	5.32	2.13	8.51
Right Turn Flow Rate	7.45	8.51	3.19	14.89
PLT, Proportion LT	0.26	0.38	0.04	0.36
PRT, Proportion RT	0.09	0.62	0.06	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.29	-0.03	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	13.83	56.38	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.01	0.05	0.02
hd, iteration 1	4.01	3.87	4.00	3.85
Difference, iteration 1	0.81	0.67	0.80	0.65
hd, iteration 2	4.03	3.93	4.03	3.91
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.93	4.03	3.91
x final, Degree of Utilization	0.10	0.02	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	13.83	56.38	23.40
hd, Departure Headway	4.03	3.93	4.03	3.91
x, Degree of Utilization	0.10	0.02	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.93	2.03	1.91
Capacity	892.91	914.32	892.22	920.47
Delay	7.47	7.00	7.30	7.01
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.47	7.00	7.30	7.01
Approach LOS	A	A	A	A
Intersection Delay	7.32			
Intersection LOS	A			

Node 14275: 37th & Monroe												
			Control Type		AWSC							
			Method		HCM 2000							
			Average Delay		16.39							
			Average LOS		C							

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	117.00	29.00	36.00	196.00	2.00	44.00	126.00	165.00	16.00	188.00	144.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	128.57	31.87	39.56	215.38	2.20	48.35	138.46	181.32	17.58	206.59	158.24
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	161.54	257.14	48.35	319.78	382.42
Left Turn Flow Rate	1.10	39.56	48.35	0.00	17.58
Right Turn Flow Rate	31.87	2.20	0.00	181.32	158.24
PLT, Proportion LT	0.01	0.15	1.00	0.00	0.05
PRT, Proportion RT	0.20	0.01	0.00	0.57	0.41
PHV, Proportion HV	2.58	2.82	1.00	1.57	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.07	0.07	0.52	-0.37	-0.22

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	161.54	257.14	48.35	319.78	382.42
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.14	0.23	0.04	0.28	0.34
hd, iteration 1	5.35	5.18	6.22	5.32	4.76
Difference, iteration 1	2.15	1.98	3.02	2.12	1.56
hd, iteration 2	6.23	5.98	6.90	6.00	5.50
Difference, iteration 2	0.88	0.80	0.68	0.68	0.75
hd, iteration 3	6.61	6.30	7.21	6.30	5.78
Difference, iteration 3	0.38	0.32	0.31	0.30	0.27
hd, iteration 4	6.76	6.43	7.33	6.42	5.90
Difference, iteration 4	0.15	0.13	0.12	0.12	0.12
hd, iteration 5	6.83	6.49	7.38	6.47	5.95
Difference, iteration 5	0.06	0.06	0.05	0.05	0.05
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.83	6.49	7.38	6.47	5.95
x final, Degree of Utilizatio	0.31	0.46	0.10	0.57	0.63

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	161.54	257.14	48.35	319.78	382.42
hd, Departure Headway	6.83	6.49	7.38	6.47	5.95
x, Degree of Utilization	0.31	0.46	0.10	0.57	0.63
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.83	4.49	5.08	4.17	3.95
Capacity	526.89	554.72	487.48	555.87	605.00
Delay	12.82	14.96	10.89	17.55	18.58
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	12.82	14.96	16.68		18.58
Approach LOS	B	B	C		C
Intersection Delay	16.39				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.41	
Worst Case Delay	31.2	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	151.00	164.00	138.00	78.00	280.00	207.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	154.08	167.35	140.82	79.59	285.71	211.22

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	154.08		140.82	79.59		
Conflicting Volume (Veh)	496.94		866.84	391.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	496.94		866.84	391.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1077.37		325.98	659.49		
Capacity	1077.37		274.27	659.49		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	154.08	167.35	140.82	79.59	285.71	211.22
cmx, Capacity	1077.37		274.27	659.49		
V / C	0.14		0.51	0.12		
d, Delay	8.90		31.20	11.21		
LOS	A		D	B		
dA, Approach Delay	4.27		23.98		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.41				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	321.43	140.82	79.59	496.94
Flared Storage Size				
cmx, Capacity	1077.37			
V / C	0.30			
Q95, 95% Queue Length	1.26			
d, Delay	8.90			
LOS	A			
dA, Approach Delay	4.27	23.98		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	1.43	
Worst Case Delay	16.1	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	293.00	30.00	9.00	338.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	329.21	33.71	10.11	379.78

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			10.11	
Conflicting Volume (Veh)	746.07	346.07			362.92	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	746.07	346.07			362.92	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	383.92	701.48			1206.83	
Capacity	379.78	701.48			1206.83	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	329.21	33.71	10.11	379.78
cmx, Capacity	379.78	701.48			1206.83	
V / C	0.13	0.04			0.01	
d, Delay	16.10	11.76			8.01	
LOS	C	B			A	
dA, Approach Delay	14.67		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	362.92	389.89
Flared Storage Size			
cmx, Capacity	447.10		1206.83
V / C	0.17		0.32
Q95, 95% Queue Length	0.60		1.41
d, Delay	14.67		8.01
LOS	B		A
dA, Approach Delay	14.67	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.94	
Average LOS		A	
V/C		0.59	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	92	143	157	0	282	8	16	108	23	113	432	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	25	38	42	0	76	2	4	29	6	30	116	1
Adjusted Volume	99	154	169	0	303	9	17	116	25	122	465	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	6238	6239	6236	6237	6242	6243	6240	6241
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	253	169	0	312	133	25	122	470
PLT, Proportion Left Turns	0.39	0.00	0.00	0.00	0.13	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.03	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	6238	6239	6236	6237	6242	6243	6240	6241
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.851	1.000	0.441	1.000	0.947	1.000	0.603	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.996	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1502	1485	793	1757	1688	1530	1004	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	6238	6239	6236	6237	6242	6243	6240	6241
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	252.69	168.82	0	311.83	133.33	24.73	121.51	469.89
s, Saturation Flow Rate	1502	1485	793	1757	1688	1530	1004	1762
c, Capacity	451	446	344	762	506	459	435	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.56	0.38	0	0.41	0.26	0.05	0.28	0.62
d1, Uniform Delay	8.84	8.29	4.82	5.86	7.98	7.47	5.48	6.57
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.98	2.44	0.00	1.63	1.27	0.22	1.59	3.70
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	13.81	10.73	4.82	7.48	9.25	7.69	7.07	10.26
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	12.58		7.48		9.00		9.61	
Approach LOS	B		A		A		A	
dI, Intersection Delay	9.94							
Intersection LOS	A							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	6238	6239	6236	6237	6242	6243	6240	6241
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.77	1.11	0.00	1.79	0.84	0.15	0.65	3.03
Q2, Second-term Queued	0.38	0.18	0.00	0.30	0.12	0.02	0.11	0.69
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.25	0.44	0.33	0.31	0.30	0.44
Q, Average Back of Queue	2.15	1.29	0.00	2.09	0.96	0.16	0.77	3.71
fB%, % Factor	1.83	1.89	2.00	1.83	1.91	1.98	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.93	2.44	0.00	3.83	1.84	0.33	1.48	6.46

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	6238	6239	6236	6237	6242	6243	6240	6241
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.17	0.11	0.00	0.18	0.08	0.02	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	6238	6239	6236	6237	6242	6243	6240	6241
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	98.92		0.00		17.20		121.51	
PLT, Proportion LT in Lane	0.39		0.00		0.13		1.00	
PLTo, Proportion LT in Op	0.11		0.00		0.23		0.00	
LT Volume per Cycle	0.82		0.00		0.14		1.01	
Vo, Opposing Flow	133.33		469.89		252.69		311.83	
Volc, Adjusted Opposing F	1.17		3.92		2.21		2.60	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.20		0.00		2.98		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		2.01		0.00		0.00	
gu	8.80		10.99		6.02		13.00	
PL	0.39		1.00		0.13		1.00	
de facto caused by PL >=								
EL1	1.46		1.92		1.67		1.66	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.85		0.44		0.95		0.60	
fLT, Left Turn Adjustment	0.85	1.00	0.44	1.00	0.95	1.00	0.60	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	26.05
Average LOS	D

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	207.00	180.00	42.00	3.00	13.00	26.00	255.00	27.00	360.00	43.00	18.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	217.89	189.47	44.21	3.16	13.68	27.37	268.42	28.42	378.95	45.26	18.95
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	231.58	189.47	47.37	13.68	324.21	424.21	18.95
Left Turn Flow Rate	13.68	0.00	44.21	0.00	27.37	378.95	0.00
Right Turn Flow Rate	0.00	189.47	0.00	13.68	28.42	0.00	18.95
PLT, Proportion LT	0.06	0.00	0.93	0.00	0.08	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.09	0.00	1.00
PHV, Proportion HV	0.00	3.00	0.20	0.00	0.83	1.79	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.03	-0.65	0.47	-0.70	-0.02	0.48	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	231.58	189.47	47.37	13.68	324.21	424.21	18.95
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.21	0.17	0.04	0.01	0.29	0.38	0.02
hd, iteration 1	5.59	4.91	6.51	5.33	5.63	6.19	5.01
Difference, iteration 1	2.39	1.71	3.31	2.13	2.43	2.99	1.81
hd, iteration 2	6.65	5.97	7.78	6.58	6.64	6.97	5.77
Difference, iteration 2	1.07	1.06	1.27	1.25	1.01	0.77	0.76
hd, iteration 3	7.01	6.32	8.30	7.09	6.98	7.29	6.09
Difference, iteration 3	0.35	0.35	0.52	0.52	0.34	0.33	0.32
hd, iteration 4	7.15	6.46	8.49	7.28	7.11	7.40	6.20
Difference, iteration 4	0.14	0.14	0.19	0.19	0.14	0.11	0.11
hd, iteration 5	7.20	6.51	8.56	7.35	7.16	7.44	6.24
Difference, iteration 5	0.05	0.05	0.07	0.07	0.05	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.20	6.51	8.56	7.35	7.16	7.44	6.24
x final, Degree of Utilization	0.46	0.34	0.11	0.03	0.64	0.88	0.03

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				62.54								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	132	247	21	356	325	70	35	236	417	33	298	41
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	34	64	5	92	84	18	9	61	107	9	77	11
Adjusted Volume	136	255	22	367	335	72	36	243	430	34	307	42

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	6246	6247	6244	6245	6250	6251	6252	6248	6249
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	136	276	367	407	279	115	315	34	349
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.18	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	6246	6247	6244	6245	6250	6251	6252	6248	6249
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.973	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	6246	6247	6244	6245	6250	6251	6252	6248	6249
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	136.08	276.29	367.01	407.22	279.38	114.64	315.26	34.02	349.48
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1767
c, Capacity	282	282	373	713	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.48	0.98	0.99	0.57	0.84	0.34	1.1	0.6	0.89
d1, Uniform Delay	33.98	37.34	34.85	20.39	35.22	7.85	26.77	42.90	33.93
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.80	48.37	43.06	3.30	22.26	2.74	83.26	38.56	24.71
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.78	85.71	77.91	23.69	57.48	10.59	110.02	81.46	58.64
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	70.55		49.39		73.26			60.67	
Approach LOS	E		D		E			E	
dI, Intersection Delay	62.54								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	6246	6247	6244	6245	6250	6251	6252	6248	6249
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.08	6.88	9.14	7.83	6.74	2.41	7.88	0.84	8.47
Q2, Second-term Queued	0.43	3.67	4.79	1.16	2.14	0.27	6.52	0.21	3.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.51	10.55	13.93	9.00	8.88	2.68	14.40	1.05	11.53
fB%, % Factor	1.75	1.56	1.53	1.58	1.58	1.79	1.53	1.91	1.55
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	6.14	16.47	21.32	14.24	14.07	4.81	22.00	2.00	17.87

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	6246	6247	6244	6245	6250	6251	6252	6248	6249
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	6246	6247	6244	6245	6250	6251	6252	6248	6249
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	26.88	
		Average LOS	C	
		V/C	0.49	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	247	11	148	239	81	103
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	67	3	40	65	22	28
Adjusted Volume	0	0	0	268	12	161	260	88	112

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	C	L	R	C
ID	6254	6253	6256	6257	6255
Lanes	LTR	LT	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	280	161	260	200
PLT, Proportion Left Turns	0.00	0.96	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.56

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	6254	6253	6256	6257	6255
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	1.000	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.588	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.924
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1059	1424	1530	1647

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	6254	6253	6256	6257	6255
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	280.43	160.87	259.78	200
s, Saturation Flow Rate	1800	1059	1424	1530	1647
c, Capacity	1040	330	823	884	513
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.85	0.2	0.29	0.39
d1, Uniform Delay	8.02	29.05	9.04	9.66	24.31
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	23.19	0.53	0.85	2.23
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	52.23	9.57	10.51	26.54
LOS	A	D	A	B	C
dA, Approach Delay	8.02	52.23	10.15		26.54
Approach LOS	A	D	B		C
dI, Intersection Delay	26.88				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	6254	6253	6256	6257	6255
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	6.57	1.91	3.30	3.92
Q2, Second-term Queued	0.00	2.21	0.24	0.43	0.45
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.53	1.00	1.05	0.72
Q, Average Back of Queue	0.00	8.78	2.16	3.74	4.37
fB%, % Factor	2.00	1.59	1.82	1.74	1.71
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	13.92	3.93	6.49	7.47

Signal Timing Information					
Approach	N	E	S		W
Lane Group	6254	6253	6256	6257	6255
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.26	0.11	0.17	0.12
Critical Lane Group		Y		Y	

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	6254	6253	6256	6257	6255
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	268.48	160.87		
PLT, Proportion LT in Lane	0.00	0.96	1.00		
PLTo, Proportion LT in Op	0.38	0.00	0.00		
LT Volume per Cycle	0.00	6.71	4.02		
Vo, Opposing Flow	0.00	200.00	0.00		
Volc, Adjusted Opposing F	0.00	5.00	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	2.75	0.00		
gu	5.00	25.25	52.00		
PL	0.00	0.96	1.00		
de facto caused by PL >=					
EL1	1.25	1.56	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.59	0.80		
fLT, Left Turn Adjustment	1.00	0.59	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.26	
Average LOS		A	
V/C		0.56	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	377	42	15	37	71	80	560	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	11	4	10	19	21	147	3
Adjusted Volume	75	33	42	56	397	44	16	39	75	84	589	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	6260	6261	6258	6259	6264	6265	6262	6263
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	441	55	75	84	603
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	6260	6261	6258	6259	6264	6265	6262	6263
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.394	1.000	0.894	1.000	0.526	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.985	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	695	1705	1610	1530	946	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	6260	6261	6258	6259	6264	6265	6262	6263
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	441.05	54.74	74.74	84.21	603.16
s, Saturation Flow Rate	1461	1530	695	1705	1610	1530	946	1759
c, Capacity	244	255	405	994	268	255	552	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.14	0.44	0.2	0.29	0.15	0.59
d1, Uniform Delay	13.49	12.85	3.40	4.22	12.94	13.14	3.43	4.76
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.71	1.43	1.71	2.90	0.59	2.47
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.11	5.65	14.65	16.04	4.02	7.23
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.48		15.45		6.83	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.26							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	6260	6261	6258	6259	6264	6265	6262	6263
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.48	0.47	0.65	0.39	3.82
Q2, Second-term Queued	0.17	0.05	0.05	0.47	0.06	0.10	0.07	0.86
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.32	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.95	0.53	0.75	0.46	4.68
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.70
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.25	1.04	1.45	0.89	7.94

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	6260	6261	6258	6259	6264	6265	6262	6263
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.08	0.26	0.03	0.05	0.09	0.34
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	6260	6261	6258	6259	6264	6265	6262	6263
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		84.21	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.84	
Vo, Opposing Flow	54.74		603.16		107.37		441.05	
Volc, Adjusted Opposing F	0.57		6.03		1.13		4.41	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.06		0.00		0.37	
gu	6.00		17.94		5.92		20.63	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.17		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.39		0.89		0.53	
fLT, Left Turn Adjustment	0.81	1.00	0.39	1.00	0.89	1.00	0.53	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				4.07								
Worst Case Delay				26.77								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	18.00	6.00	46.00	236.00	3.00	15.00	65.00	55.00	11.00	435.00	73.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	18.56	6.19	47.42	243.30	3.09	15.46	67.01	56.70	11.34	448.45	75.26

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	18.56	6.19	47.42			15.46	67.01	56.70	11.34		
Conflicting Volume (Veh)	910.31	886.08	244.85	523.71			860.82	850.00	486.08	246.39		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	910.31	886.08	244.85	523.71			860.82	850.00	486.08	246.39		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	257.41	277.16	798.88	1017.86			269.22	299.77	585.32	1331.37		
Capacity	180.39	258.84	798.88	1017.86			239.88	279.94	585.32	1331.37		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	18.56	6.19	47.42	243.30	3.09	15.46	67.01	56.70	11.34	448.45	75.26
cmx, Capacity	180.39	258.84	798.88	1017.86			239.88	279.94	585.32	1331.37		
V / C	0.01	0.07	0.01	0.05			0.06	0.24	0.10	0.01		
d, Delay	26.06	20.01	10.61	8.71			26.77	24.62	17.91	7.73		
LOS	D	C	B	A			D	C	C	A		
dA, Approach Delay	18.00			1.41			22.13			0.16		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.47						0.10		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	25.77	293.81	139.18	535.05
Flared Storage Size				
cmx, Capacity	302.68	1017.86	347.32	1331.37
V / C	0.09	0.29	0.40	0.40
Q95, 95% Queue Length	0.28	1.20	1.87	1.98
d, Delay	18.00	8.71	22.13	7.73
LOS	C	A	C	A
dA, Approach Delay	18.00	1.41	22.13	0.16
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.67								
Worst Case Delay				30.91								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	8.00	472.00	9.00	11.00	0.00	0.00	10.00	596.00	13.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	8.79	518.68	9.89	12.09	0.00	0.00	10.99	654.95	14.29

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	8.79			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1218.13	1232.42	523.63	669.23			1224.73	1230.22	662.09	528.57		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1218.13	1232.42	523.63	669.23			1224.73	1230.22	662.09	528.57		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	158.84	178.56	557.45	902.21			157.19	179.10	458.26	999.12		
Capacity	156.34	174.88	557.45	902.21			150.99	175.40	458.26	999.12		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	8.79	518.68	9.89	12.09	0.00	0.00	10.99	654.95	14.29
cmx, Capacity	156.34	174.88	557.45	902.21			150.99	175.40	458.26	999.12		
V / C	0.03	0.02	0.01	0.01			0.08	0.00	0.00	0.01		
d, Delay	28.96	26.52	12.39	9.03			30.91	27.59	14.92	8.64		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	21.45			0.15			30.91			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	8.79	528.57	12.09	10.99	669.23
Flared Storage Size						
cmx, Capacity	232.06			150.99		
V / C	0.06			0.08		
Q95, 95% Queue Length	0.18			0.26		
d, Delay	21.45			30.91		
LOS	C			D		
dA, Approach Delay	21.45	0.15		30.91	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	12.33		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	94.00	180.00	0.00	11.00	36.00	7.00	58.00	1.00	260.00	40.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	111.90	214.29	0.00	13.10	42.86	8.33	69.05	1.19	309.52	47.62	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	326.19	55.95	78.57	376.19
Left Turn Flow Rate	0.00	0.00	8.33	309.52
Right Turn Flow Rate	214.29	42.86	1.19	19.05
PLT, Proportion LT	0.00	0.00	0.11	0.82
PRT, Proportion RT	0.66	0.77	0.02	0.05
PHV, Proportion HV	2.34	0.47	0.50	0.82
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.35	-0.45	0.02	0.15

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	326.19	55.95	78.57	376.19
hd initial	3.20	3.20	3.20	3.20
x initial	0.29	0.05	0.07	0.33
hd, iteration 1	4.35	4.47	4.95	4.78
Difference, iteration 1	1.15	1.27	1.75	1.58
hd, iteration 2	4.74	4.93	5.44	5.07
Difference, iteration 2	0.40	0.47	0.49	0.29
hd, iteration 3	4.83	5.07	5.56	5.16
Difference, iteration 3	0.08	0.13	0.12	0.09
hd, iteration 4	4.85	5.10	5.59	5.19
Difference, iteration 4	0.03	0.03	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.85	5.10	5.59	5.19
x final, Degree of Utilization	0.44	0.08	0.12	0.54

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	326.19	55.95	78.57	376.19
hd, Departure Headway	4.85	5.10	5.59	5.19
x, Degree of Utilization	0.44	0.08	0.12	0.54
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.85	3.10	3.59	3.19
Capacity	741.89	705.91	643.69	693.60
Delay	11.60	8.54	9.37	14.15
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	11.60	8.54	9.37	14.15
Approach LOS	B	A	A	B
Intersection Delay	12.33			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.12	
Worst Case Delay	10.24	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	9.00	49.00	29.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	12.33	67.12	39.73	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	86.30
Conflicting Volume (Veh)			56.16		223.97	50.00
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			56.16		223.97	50.00
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1561.46		768.66	1024.01
Capacity			1561.46		734.83	1024.01

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	12.33	67.12	39.73	2.74	86.30
cmx, Capacity			1561.46		734.83	1024.01
V / C			0.04		0.00	0.08
d, Delay			7.41		10.24	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.33			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	56.16	106.85	89.04
Flared Storage Size			
cmx, Capacity		1561.46	1011.76
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.29
d, Delay		7.41	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.04	
Worst Case Delay	17.83	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	460.00	0.00	3.00	414.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	511.11	0.00	3.33	460.00	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		0.00	3.33		
Conflicting Volume (Veh)	467.78		975.00	463.89		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	467.78		975.00	463.89		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1043.33		281.29	602.41		
Capacity	1043.33		281.29	602.41		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	511.11	0.00	3.33	460.00	7.78
cmx, Capacity	1043.33		281.29	602.41		
V / C	0.00		0.00	0.01		
d, Delay	8.45		17.83	11.01		
LOS	A		C	B		
dA, Approach Delay	0.00		11.01		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	511.11	3.33	467.78
Flared Storage Size			
cmx, Capacity	0.00	602.41	
V / C	0.00	0.01	
Q95, 95% Queue Length	0.00	0.02	
d, Delay	4.23	11.01	
LOS	A	B	
dA, Approach Delay	0.00	11.01	0.00
Approach LOS		B	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.23	
Worst Case Delay	18.39	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	449.00	3.00	8.00	414.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	504.49	3.37	8.99	465.17	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		3.37	8.99		
Conflicting Volume (Veh)	470.79		988.20	467.98		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	470.79		988.20	467.98		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1101.54		276.26	599.23		
Capacity	1101.54		273.45	599.23		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	504.49	3.37	8.99	465.17	5.62
cmx, Capacity	1101.54		273.45	599.23		
V / C	0.01		0.01	0.02		
d, Delay	8.29		18.39	11.23		
LOS	A		C	B		
dA, Approach Delay	0.13		13.18		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.08				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	512.36	12.36	470.79
Flared Storage Size			
cmx, Capacity	1101.54	452.28	
V / C	0.47	0.03	
Q95, 95% Queue Length	2.52	0.08	
d, Delay	8.29	13.18	
LOS	A	B	
dA, Approach Delay	0.13	13.18	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.25	
Worst Case Delay	9.53	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	66.00	15.00	10.00	62.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	75.00	17.05	11.36	70.45

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			11.36	
Conflicting Volume (Veh)	176.70	83.52			92.05	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	176.70	83.52			92.05	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	817.67	928.22			1465.66	
Capacity	811.05	928.22			1465.66	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	75.00	17.05	11.36	70.45
cmx, Capacity	811.05	928.22			1465.66	
V / C	0.02	0.00			0.01	
d, Delay	9.53	8.97			7.48	
LOS	A	A			A	
dA, Approach Delay	9.53		0.00		1.04	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	92.05	81.82
Flared Storage Size			
cmx, Capacity	811.05		1465.66
V / C	0.02		0.06
Q95, 95% Queue Length	0.06		0.18
d, Delay	9.53		7.48
LOS	A		A
dA, Approach Delay	9.53	0.00	1.04
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.22	
Worst Case Delay	13.26	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	164.00	78.00	83.00	115.00	17.00	83.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	174.47	82.98	88.30	122.34	18.09	88.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			88.30		18.09	88.30
Conflicting Volume (Veh)			257.45		514.89	215.96
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			257.45		514.89	215.96
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1301.48		523.45	816.44
Capacity			1301.48		485.18	816.44

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	174.47	82.98	88.30	122.34	18.09	88.30
cmx, Capacity			1301.48		485.18	816.44
V / C			0.07		0.04	0.11
d, Delay			7.97		13.26	10.25
LOS			A		B	B
dA, Approach Delay	0.00		3.34		10.76	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.58			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	257.45	210.64	106.38
Flared Storage Size			
cmx, Capacity		1301.48	731.53
V / C		0.16	0.15
Q95, 95% Queue Length		0.58	0.51
d, Delay		7.97	10.76
LOS		A	B
dA, Approach Delay	0.00	3.34	10.76
Approach LOS			B

Scenario 4

Diverter at OR 224

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	62.95
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	267	72	97	315	18	63	246	65	116	467	93
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	70	19	25	82	5	16	64	17	30	122	24
Adjusted Volume	40	278	75	101	328	19	66	256	68	121	486	97

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	57707	57708	57705	57706	57711	57712	57709	57710
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	353	101	347	66	324	121	583
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.05	0.00	0.21	0.00	0.17

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57707	57708	57705	57706	57711	57712	57709	57710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.992	1.000	0.969	1.000	0.975
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1750	1644	1726	1676	1704

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57707	57708	57705	57706	57711	57712	57709	57710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	353.13	101.04	346.88	65.63	323.96	120.83	583.33
s, Saturation Flow Rate	1710	1725	1644	1750	1644	1726	1676	1704
c, Capacity	46	471	91	500	117	549	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.11	0.69	0.56	0.59	1.01	1.13
d1, Uniform Delay	27.15	18.60	26.45	17.82	25.15	16.04	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	96.79	10.44	127.21	7.72	17.81	4.61	84.68	82.19
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	29.03	153.66	25.53	42.96	20.65	110.68	101.74
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.60		54.43		24.41		103.27	
Approach LOS	D		D		C		F	
dI, Intersection Delay	62.95							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57707	57708	57705	57706	57711	57712	57709	57710
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.02	1.57	4.81	0.99	4.23	1.88	9.07
Q2, Second-term Queued	0.40	1.33	2.15	1.08	0.22	0.76	1.74	11.81
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.50	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.35	3.72	5.89	1.21	4.99	3.62	20.88
fB%, % Factor	1.91	1.64	1.74	1.65	1.89	1.68	1.74	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.41	6.47	9.74	2.29	8.40	6.31	31.49

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57707	57708	57705	57706	57711	57712	57709	57710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.04	0.19	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57707	57708	57705	57706	57711	57712	57709	57710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.22	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1785	36	1614	14	112
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	480	10	434	4	30
Adjusted Volume	1919	39	1735	15	120

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	57717	57716	57713	57715	57719
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1919	39	1735	15	120
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	57717	57716	57713	57715	57719
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	57717	57716	57713	57715	57719
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1919.35	38.71	1735.48	15.05	120.43
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.72	0.21	0.65	0.01	0.66
d1, Uniform Delay	5.67	48.01	5.02	2.42	50.74
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.72	2.66	1.26	0.02	17.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.40	50.67	6.27	2.44	68.22
LOS	A	D	A	A	E
dA, Approach Delay	7.40	50.67	6.24		68.22
Approach LOS	A	D	A		E
dI, Intersection Delay	9.22				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	57717	57716	57713	57715	57719
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	15.88	1.17	12.70	0.10	3.84
Q2, Second-term Queued	4.20	0.11	3.15	0.02	0.76
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.08	1.28	15.85	0.12	4.60
fB%, % Factor	1.51	1.89	1.52	1.99	1.70
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.31	2.42	24.10	0.24	7.82

Signal Timing Information					
Approach	N	E	S		W
Lane Group	57717	57716	57713	57715	57719
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.02	0.52	0.01	0.08
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	57717	57716	57713	57715	57719
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdifff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.62								
Average LOS				D								
V/C				0.87								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	103	1714	114	101	261	152	205	1443	85	26	169	4
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	27	456	30	27	69	40	55	384	23	7	45	1
Adjusted Volume	110	1823	121	107	278	162	218	1535	90	28	180	4

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	110	1823	121	107	278	38	124	218	1535	90	28	180	4
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.617	1.000	1.000	1.000	0.950	1.000	1.000	0.466	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1088	3427	1515	1515	1676	3327	1500	838	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	109.57	1823.4	121.28	107.45	277.66	37.73	123.97	218.09	1535.11	90.43	27.66	179.79	4.26
s, Saturation Flow Rate	1676	3360	1515	1088	3427	1515	1515	1676	3327	1500	838	3427	1530
c, Capacity	335	1988	896	200	628	303	278	182	1664	750	154	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.33	0.92	0.14	0.54	0.44	0.12	0.45	1.2	0.92	0.12	0.18	0.29	0.02
d1, Uniform Delay	41.09	21.88	10.87	44.40	43.54	9.19	33.41	53.50	27.85	15.96	41.38	42.23	40.13
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.58	8.22	0.31	10.04	2.25	0.84	5.12	131.18	10.03	0.33	2.56	1.14	0.10
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.67	30.09	11.19	54.44	45.79	10.03	38.53	184.68	37.87	16.29	43.94	43.38	40.23
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	29.70			43.38				54.18			43.39		
Approach LOS	C			D				D			D		
dI, Intersection Delay	41.62												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.13	28.50	1.79	3.25	4.32	1.03	3.68	7.27	24.95	1.60	0.78	2.71	0.12
Q2, Second-term Queued	0.31	8.79	0.20	0.51	0.50	0.09	0.45	6.37	7.86	0.16	0.08	0.26	0.01
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.38	0.64	0.57
Q, Average Back of Queue	3.44	37.30	2.00	3.75	4.82	1.12	4.12	13.64	32.81	1.76	0.86	2.97	0.12
fB%, % Factor	1.75	1.50	1.84	1.74	1.69	1.90	1.72	1.53	1.50	1.85	1.92	1.78	1.99
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.02	55.96	3.66	6.51	8.15	2.12	7.09	20.90	49.23	3.26	1.65	5.27	0.25

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.54	0.08	0.10	0.08	0.02	0.08	0.13	0.46	0.06	0.03	0.05	0.00
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	57729	57730	57732	57724	57725	57727	57728	57720	57721	57723	57733	57734	57736
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				107.45							27.66		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.58							0.92		
Vo, Opposing Flow				179.79							277.66		
Volc, Adjusted Opposing F				3.30							5.10		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.70							5.10		
gu				20.30							16.90		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.50							1.65		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.62							0.47		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.62	1.00	1.00	1.00	0.95	1.00	1.00	0.47	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.96	
Average LOS		D	
V/C		0.97	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	270	1644	22	71	235	158	53	1571	43	7	267	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	70	428	6	18	61	41	14	409	11	2	70	15
Adjusted Volume	281	1713	23	74	245	165	55	1636	45	7	278	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57753	57754	57756	57751	57747	57748	57750	57757
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	281	1713	23	483	55	1636	45	344
PLT, Proportion Left Turns	1.00	0.00	0.00	0.15	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.34	0.00	0.00	1.00	0.17

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57753	57754	57756	57751	57747	57748	57750	57757
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.763	0.950	1.000	1.000	0.945
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.949	1.000	1.000	0.850	0.975
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2362	1613	3360	1471	3035

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57753	57754	57756	57751	57747	57748	57750	57757
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	281.25	1712.5	22.92	483.33	55.21	1636.46	44.79	343.75
s, Saturation Flow Rate	1710	3327	1530	2362	1613	3360	1471	3035
c, Capacity	323	1869	859	541	149	1562	684	695
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.87	0.92	0.03	0.89	0.37	1.05	0.07	0.49
d1, Uniform Delay	47.21	23.75	11.70	44.82	51.16	32.10	17.71	40.21
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	25.76	8.59	0.06	19.70	6.91	36.29	0.18	2.50
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	72.98	32.34	11.76	64.52	58.08	68.39	17.90	42.71
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	37.77			64.52	66.76			42.71
Approach LOS	D			E	E			D
dI, Intersection Delay	51.96							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57753	57754	57756	57751	57747	57748	57750	57757
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.10	27.08	0.34	8.20	1.73	28.65	0.82	5.23
Q2, Second-term Queued	2.77	8.33	0.03	2.79	0.21	14.12	0.07	0.66
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.58	0.37	1.22	1.07	0.69
Q, Average Back of Queue	11.87	35.41	0.37	10.99	1.94	42.77	0.90	5.89
fB%, % Factor	1.55	1.50	1.96	1.56	1.84	1.50	1.92	1.65
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.35	53.13	0.74	17.09	3.57	64.16	1.72	9.74

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57753	57754	57756	57751	57747	57748	57750	57757
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.16	0.51	0.01	0.20	0.03	0.49	0.03	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57753	57754	57756	57751	57747	57748	57750	57757
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				73.96				7.29
PLT, Proportion LT in Lane				0.15				0.02
PLTo, Proportion LT in Op				0.02				0.15
LT Volume per Cycle				2.47				0.24
Vo, Opposing Flow				343.75				483.33
Volc, Adjusted Opposing F				6.02				8.46
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				1.10				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.31				11.19
gu				21.19				11.53
PL				0.40				0.04
de facto caused by PL >=								
EL1				1.84				2.14
EL2				19.99				0.00
gdifff				0.00				0.00
fm				0.62				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.76	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.09
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	425.00	55.00	381.00	154.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	467.03	60.44	418.68	169.23

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		503.30		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		503.30		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		568.34		
Capacity		568.34		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	467.03	60.44	418.68	169.23
cmx, Capacity		568.34		
V / C		0.11		
d, Delay		12.09		
LOS		B		
dA, Approach Delay	0.00	12.09	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	467.03	60.44	587.91
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.09	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.16	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	336	85	166	413
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	88	22	44	109
Adjusted Volume	89	118	354	89	175	435

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	57774	57773	57775	57777
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	443	175	435
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	57774	57773	57775	57777
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.387
fRT, Right Turn Adjustment	0.923	0.973	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1700	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	57774	57773	57775	57777
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	443.16	132	43
			175	434.74
s, Saturation Flow Rate	1627	1700	1693	690
			830	1748
c, Capacity	560	756	132	330
			461	971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
X, Volume / Capacity	0.37	0.59	1.00	0.13
			0.38	0.45
d1, Uniform Delay	22.16	18.79	10.86	11.83
k, Delay Calibration	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.87	3.32	2.36	1.49
d3, Initial Queue Delay	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	0.56
PF, Progression Factor	1.00	1.00	1.00	1.00
d, Delay	24.04	22.11	13.22	13.33
LOS	C	C	B	B
dA, Approach Delay	24.04	22.11	13.30	
Approach LOS	C	C	B	
dI, Intersection Delay	18.16			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	57774	57773	57775	57777
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.33	2.46	6.43
Q2, Second-term Queued	0.44	1.29	0.40	0.90
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.61	2.86	7.33
fB%, % Factor	1.71	1.57	1.78	1.62
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.12	5.10	11.83

Signal Timing Information					
Approach	N	E	W		
Lane Group	57774	57773	57775		57777
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.25
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	57774	57773	57775		57777
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				443.16	
Volc, Adjusted Opposing Flow				11.08	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.83	
gu				31.17	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.73								
Worst Case Delay				51.16								
Worst Case LOS				F								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	41.00	400.00	63.00	1.00	68.00	69.00	24.00	296.00	27.00	25.00	65.00	30.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	45.05	439.56	69.23	1.10	74.73	75.82	26.37	325.27	29.67	27.47	71.43	32.97

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	45.05			1.10	74.73	75.82	26.37			27.47	71.43	32.97
Conflicting Volume (Veh)	354.95			1009.34	991.76	340.11	508.79			1032.42	971.98	474.18
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	354.95			1009.34	991.76	340.11	508.79			1032.42	971.98	474.18
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1176.55			220.55	247.80	702.28	1066.58			212.73	252.50	582.17
Capacity	1176.55			148.66	226.93	702.28	1066.58			132.75	231.24	582.17

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	45.05	439.56	69.23	1.10	74.73	75.82	26.37	325.27	29.67	27.47	71.43	32.97
cmx, Capacity	1176.55			148.66	226.93	702.28	1066.58			132.75	231.24	582.17
V / C	0.04			0.01	0.33	0.11	0.02			0.21	0.31	0.06
d, Delay	8.18			37.40	29.05	18.31	8.46			51.16	39.61	30.23
LOS	A			E	D	C	A			F	E	D
dA, Approach Delay	0.67			23.74			0.59			39.67		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.45						0.26					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	553.85	151.65	381.32	131.87
Flared Storage Size				
cmx, Capacity	1176.55	341.06	1066.58	230.35
V / C	0.47	0.44	0.36	0.57
Q95, 95% Queue Length	2.58	2.20	1.64	3.19
d, Delay	8.18	23.74	8.46	39.67
LOS	A	C	A	E
dA, Approach Delay	0.67	23.74	0.59	39.67
Approach LOS		C		E

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.91								
Worst Case Delay				13.33								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	113.00	20.00	80.00	20.00	15.00	10.00	35.00	64.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	122.83	21.74	86.96	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	122.83	21.74	86.96			10.87	38.04	69.57	5.43		
Conflicting Volume (Veh)	292.93	247.28	29.89	32.61			311.41	247.28	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	292.93	247.28	29.89	32.61			311.41	247.28	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	663.29	655.16	1036.06	1592.47			637.21	656.88	1057.68	1585.26		
Capacity	564.08	616.40	1036.06	1592.47			505.16	618.03	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	122.83	21.74	86.96	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30
cmx, Capacity	564.08	616.40	1036.06	1592.47			505.16	618.03	1057.68	1585.26		
V / C	0.04	0.20	0.02	0.05			0.02	0.06	0.07	0.00		
d, Delay	13.33	12.78	10.42	7.39			12.92	11.61	9.19	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.55			5.14			10.31			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.41						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	166.30	125.00	118.48	38.04
Flared Storage Size				
cmx, Capacity	642.64	1592.47	795.98	1585.26
V / C	0.26	0.08	0.15	0.02
Q95, 95% Queue Length	1.03	0.26	0.52	0.07
d, Delay	12.55	7.39	10.31	7.28
LOS	B	A	B	A
dA, Approach Delay	12.55	5.14	10.31	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.41								
Worst Case Delay				33.72								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	131.00	4.00	81.00	32.00	97.00	28.00	124.00	137.00	5.00	20.00	49.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	154.12	4.71	95.29	37.65	114.12	32.94	145.88	161.18	5.88	23.53	57.65

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			95.29	37.65	114.12	32.94			5.88	23.53	57.65
Conflicting Volume (Veh)	307.06			778.82	742.94	226.47	158.82			816.47	821.18	156.47
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	307.06			778.82	742.94	226.47	158.82			816.47	821.18	156.47
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1247.93			314.46	345.67	812.88	1432.94			297.81	311.52	883.88
Capacity	1247.93			244.78	296.70	812.88	1432.94			206.50	267.39	883.88

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	154.12	4.71	95.29	37.65	114.12	32.94	145.88	161.18	5.88	23.53	57.65
cmx, Capacity	1247.93			244.78	296.70	812.88	1432.94			206.50	267.39	883.88
V / C	0.12			0.39	0.13	0.14	0.02			0.03	0.09	0.07
d, Delay	8.27			33.72	31.15	10.15	7.57			24.09	20.12	10.73
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.96			22.44			0.73			14.17		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.21					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	158.82	132.94	114.12	340.00	87.06
Flared Storage Size						
cmx, Capacity			257.54		1432.94	479.13
V / C			0.52		0.24	0.18
Q95, 95% Queue Length			2.72		0.93	0.66
d, Delay			32.99		7.57	14.17
LOS			D		A	B
dA, Approach Delay	3.96		22.44		0.73	14.17
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.23	
Worst Case Delay	15.23	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	36.00	16.00	293.00	43.00	19.00	309.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	38.30	17.02	311.70	45.74	20.21	328.72

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	38.30	17.02			20.21	
Conflicting Volume (Veh)	703.72	334.57			357.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	703.72	334.57			357.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	401.94	711.93			1212.42	
Capacity	393.64	711.93			1212.42	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	38.30	17.02	311.70	45.74	20.21	328.72
cmx, Capacity	393.64	711.93			1212.42	
V / C	0.10	0.02			0.02	
d, Delay	15.23	11.14			8.02	
LOS	C	B			A	
dA, Approach Delay	13.97		0.00		0.46	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	55.32	357.45	348.94
Flared Storage Size			
cmx, Capacity	456.42		1212.42
V / C	0.12		0.29
Q95, 95% Queue Length	0.41		1.20
d, Delay	13.97		8.02
LOS	B		A
dA, Approach Delay	13.97	0.00	0.46
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.64	
Worst Case Delay	22.42	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	395.00	5.00	23.00	658.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	403.06	5.10	23.47	671.43	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	676.53		1140.31	673.98		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	676.53		1140.31	673.98		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	910.39		224.15	451.13		
Capacity	910.39		216.37	451.13		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	403.06	5.10	23.47	671.43	5.10
cmx, Capacity	910.39		216.37	451.13		
V / C	0.03		0.02	0.05		
d, Delay	9.10		22.42	13.76		
LOS	A		C	B		
dA, Approach Delay	0.66		15.30		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	403.06	28.57	676.53
Flared Storage Size				
cmx, Capacity			377.91	
V / C			0.08	
Q95, 95% Queue Length			0.24	
d, Delay			15.30	
LOS			C	
dA, Approach Delay	0.66		15.30	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	8.3		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	53.00	9.00	5.00	117.00	12.00	6.00	45.00	5.00	10.00	119.00	19.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	56.38	9.57	5.32	124.47	12.77	6.38	47.87	5.32	10.64	126.60	20.21
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	142.55	59.57	157.45
Left Turn Flow Rate	24.47	5.32	6.38	10.64
Right Turn Flow Rate	9.57	12.77	5.32	20.21
PLT, Proportion LT	0.27	0.04	0.11	0.07
PRT, Proportion RT	0.11	0.09	0.09	0.13
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	142.55	59.57	157.45
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.13	0.05	0.14
hd, iteration 1	4.45	4.23	4.45	4.20
Difference, iteration 1	1.25	1.03	1.25	1.00
hd, iteration 2	4.63	4.38	4.64	4.34
Difference, iteration 2	0.18	0.14	0.19	0.14
hd, iteration 3	4.65	4.40	4.67	4.36
Difference, iteration 3	0.03	0.02	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.65	4.40	4.67	4.36
x final, Degree of Utilization	0.12	0.17	0.08	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	142.55	59.57	157.45
hd, Departure Headway	4.65	4.40	4.67	4.36
x, Degree of Utilization	0.12	0.17	0.08	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.65	2.40	2.67	2.36
Capacity	773.92	818.85	770.80	824.75
Delay	8.26	8.32	8.06	8.39
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.26	8.32	8.06	8.39
Approach LOS	A	A	A	A
Intersection Delay	8.3			
Intersection LOS	A			

Node 14275: 37th & Monroe					
Control Type		AWSC			
Method		HCM 2000			
Average Delay		16.06			
Average LOS		C			

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	37.00	22.00	57.00	161.00	1.00	81.00	126.00	177.00	14.00	217.00	154.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	40.66	24.18	62.64	176.92	1.10	89.01	138.46	194.51	15.38	238.46	169.23
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	240.66	89.01	332.97	423.08
Left Turn Flow Rate	1.10	62.64	89.01	0.00	15.38
Right Turn Flow Rate	24.18	1.10	0.00	194.51	169.23
PLT, Proportion LT	0.02	0.26	1.00	0.00	0.04
PRT, Proportion RT	0.37	0.00	0.00	0.58	0.40
PHV, Proportion HV	3.07	2.73	1.00	1.58	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.16	0.10	0.52	-0.38	-0.22

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	240.66	89.01	332.97	423.08
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.06	0.21	0.08	0.30	0.38
hd, iteration 1	5.34	5.15	6.17	5.27	4.66
Difference, iteration 1	2.14	1.95	2.97	2.07	1.46
hd, iteration 2	6.24	5.86	6.76	5.84	5.30
Difference, iteration 2	0.90	0.72	0.58	0.58	0.64
hd, iteration 3	6.59	6.10	6.99	6.08	5.50
Difference, iteration 3	0.35	0.24	0.24	0.23	0.19
hd, iteration 4	6.71	6.19	7.07	6.15	5.57
Difference, iteration 4	0.12	0.09	0.08	0.08	0.07
hd, iteration 5	6.75	6.22	7.10	6.18	5.60
Difference, iteration 5	0.04	0.03	0.03	0.03	0.02
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.75	6.22	7.10	6.18	5.60
x final, Degree of Utilizatio	0.12	0.42	0.18	0.57	0.66

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	240.66	89.01	332.97	423.08
hd, Departure Headway	6.75	6.22	7.10	6.18	5.60
x, Degree of Utilization	0.12	0.42	0.18	0.57	0.66
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.75	4.22	4.80	3.88	3.60
Capacity	533.40	578.38	507.03	582.04	642.88
Delay	10.70	13.58	11.30	16.81	18.71
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	10.70	13.58	15.65		18.71
Approach LOS	B	B	C		C
Intersection Delay	16.06				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	5.89	
Worst Case Delay	26.06	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	136.00	125.00	131.00	102.00	306.00	186.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	138.78	127.55	133.67	104.08	312.24	189.80

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	138.78		133.67	104.08		
Conflicting Volume (Veh)	502.04		812.24	407.14		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	502.04		812.24	407.14		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1072.71		351.05	646.14		
Capacity	1072.71		301.95	646.14		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	138.78	127.55	133.67	104.08	312.24	189.80
cmx, Capacity	1072.71		301.95	646.14		
V / C	0.13		0.44	0.16		
d, Delay	8.85		26.06	11.64		
LOS	A		D	B		
dA, Approach Delay	4.61		19.75		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.24				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	266.33	133.67	104.08	502.04
Flared Storage Size				
cmx, Capacity	1072.71			
V / C	0.25			
Q95, 95% Queue Length	0.98			
d, Delay	8.85			
LOS	A			
dA, Approach Delay	4.61	19.75		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.48	
Worst Case Delay	14.85	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	260.00	31.00	9.00	301.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	292.13	34.83	10.11	338.20

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			10.11	
Conflicting Volume (Veh)	667.98	309.55			326.97	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	667.98	309.55			326.97	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	426.50	735.22			1244.01	
Capacity	422.17	735.22			1244.01	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	292.13	34.83	10.11	338.20
cmx, Capacity	422.17	735.22			1244.01	
V / C	0.12	0.03			0.01	
d, Delay	14.85	11.22			7.92	
LOS	B	B			A	
dA, Approach Delay	13.66		0.00		0.23	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	326.97	348.31
Flared Storage Size			
cmx, Capacity	490.79		1244.01
V / C	0.15		0.28
Q95, 95% Queue Length	0.54		1.15
d, Delay	13.66		7.92
LOS	B		A
dA, Approach Delay	13.66	0.00	0.23
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.53	
Average LOS		A	
V/C		0.55	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	41	188	161	55	243	17	58	107	19	114	409	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	11	51	43	15	65	5	16	29	5	31	110	1
Adjusted Volume	44	202	173	59	261	18	62	115	20	123	440	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57804	57805	57802	57803	57808	57809	57806	57807
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	246	173	59	280	177	20	123	445
PLT, Proportion Left Turns	0.18	0.00	1.00	0.00	0.35	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.07	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	57804	57805	57802	57803	57808	57809	57806	57807
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.929	1.000	0.468	1.000	0.835	1.000	0.621	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1640	1485	843	1747	1489	1530	1034	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	57804	57805	57802	57803	57808	57809	57806	57807
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	246.24	173.12	59.14	279.57	177.42	20.43	122.58	445.16
s, Saturation Flow Rate	1640	1485	843	1747	1489	1530	1034	1762
c, Capacity	492	446	365	757	447	459	448	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.5	0.39	0.16	0.37	0.4	0.04	0.27	0.58
d1, Uniform Delay	8.65	8.32	5.18	5.73	8.34	7.45	5.46	6.45
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.61	2.54	0.95	1.38	2.63	0.18	1.50	3.24
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.26	10.86	6.13	7.12	10.98	7.63	6.97	9.69
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	11.68		6.95		10.63		9.10	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.53							
Intersection LOS	A							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57804	57805	57802	57803	57808	57809	57806	57807
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.69	1.14	0.30	1.57	1.17	0.12	0.66	2.81
Q2, Second-term Queued	0.32	0.19	0.05	0.25	0.20	0.01	0.11	0.60
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.01	1.33	0.35	1.83	1.37	0.14	0.77	3.42
fB%, % Factor	1.83	1.88	1.97	1.85	1.88	1.99	1.93	1.75
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.69	2.51	0.69	3.37	2.58	0.27	1.49	5.99

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57804	57805	57802	57803	57808	57809	57806	57807
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.15	0.12	0.07	0.16	0.12	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57804	57805	57802	57803	57808	57809	57806	57807
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	44.09		59.14		62.37		122.58	
PLT, Proportion LT in Lane	0.18		1.00		0.35		1.00	
PLTo, Proportion LT in Op	0.32		0.00		0.11		0.00	
LT Volume per Cycle	0.37		0.49		0.52		1.02	
Vo, Opposing Flow	177.42		445.16		246.24		279.57	
Volc, Adjusted Opposing F	1.55		3.71		2.16		2.33	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.69		0.00		1.09		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.59		0.00		0.00	
gu	7.31		11.41		7.91		13.00	
PL	0.18		1.00		0.35		1.00	
de facto caused by PL >=								
EL1	1.53		1.88		1.66		1.61	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.93		0.47		0.84		0.62	
fLT, Left Turn Adjustment	0.93	1.00	0.47	1.00	0.84	1.00	0.62	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	22.92
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	119.00	190.00	32.00	51.00	11.00	28.00	264.00	27.00	338.00	44.00	57.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	125.26	200.00	33.68	53.68	11.58	29.47	277.89	28.42	355.79	46.32	60.00
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	138.95	200.00	87.37	11.58	335.79	402.11	60.00
Left Turn Flow Rate	13.68	0.00	33.68	0.00	29.47	355.79	0.00
Right Turn Flow Rate	0.00	200.00	0.00	11.58	28.42	0.00	60.00
PLT, Proportion LT	0.10	0.00	0.39	0.00	0.09	0.88	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.08	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.84	0.00	0.83	1.77	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.05	-0.65	0.22	-0.70	-0.02	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	138.95	200.00	87.37	11.58	335.79	402.11	60.00
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.12	0.18	0.08	0.01	0.30	0.36	0.05
hd, iteration 1	5.69	4.99	6.16	5.23	5.64	6.12	4.94
Difference, iteration 1	2.49	1.79	2.96	2.03	2.44	2.92	1.74
hd, iteration 2	6.75	6.05	7.34	6.39	6.57	6.90	5.71
Difference, iteration 2	1.06	1.06	1.17	1.16	0.94	0.78	0.77
hd, iteration 3	7.11	6.40	7.80	6.86	6.89	7.23	6.04
Difference, iteration 3	0.35	0.35	0.47	0.46	0.32	0.33	0.32
hd, iteration 4	7.25	6.54	7.97	7.02	7.02	7.34	6.14
Difference, iteration 4	0.14	0.14	0.17	0.17	0.12	0.11	0.11
hd, iteration 5	7.30	6.59	8.04	7.08	7.06	7.38	6.19
Difference, iteration 5	0.05	0.05	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.30	6.59	8.04	7.08	7.06	7.38	6.19
x final, Degree of Utilization	0.28	0.37	0.20	0.02	0.66	0.82	0.10

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
			Control Type		Signalized							
			Method		HCM 2000							
			Average Delay		61.7							
			Average LOS		E							
			V/C		0.97							
			Loss Time		18							

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	119	247	16	357	303	75	34	238	417	28	291	39
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	64	4	92	78	19	9	61	107	7	75	10
Adjusted Volume	123	255	16	368	312	77	35	245	430	29	300	40

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	57812	57813	57810	57811	57816	57817	57818	57814	57815
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123	271	368	390	280	115	315	29	340
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.06	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	57812	57813	57810	57811	57816	57817	57818	57814	57815
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.991	1.000	0.970	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1699	1676	1729	1754	1515	1515	1710	1768

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	57812	57813	57810	57811	57816	57817	57818	57814	57815
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	122.68	271.13	368.04	389.69	280.41	114.64	315.26	28.87	340.21
s, Saturation Flow Rate	1693	1699	1676	1729	1754	1515	1515	1710	1768
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.43	0.96	0.99	0.55	0.85	0.34	1.1	0.51	0.87
d1, Uniform Delay	33.69	37.19	34.88	20.15	35.24	7.85	26.77	42.77	33.71
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	4.82	43.69	43.70	3.03	22.58	2.74	83.26	28.69	21.74
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.51	80.87	78.58	23.17	57.82	10.59	110.02	71.47	55.45
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	67.68		50.09		73.37			56.70	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.7								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	57812	57813	57810	57811	57816	57817	57818	57814	57815
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.76	6.72	9.17	7.41	6.77	2.41	7.88	0.71	8.19
Q2, Second-term Queued	0.36	3.32	4.86	1.06	2.17	0.27	6.52	0.15	2.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.11	10.04	14.03	8.47	8.94	2.68	14.40	0.86	10.91
fB%, % Factor	1.77	1.57	1.53	1.59	1.58	1.79	1.53	1.92	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	15.74	21.46	13.48	14.15	4.81	22.00	1.65	16.98

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	57812	57813	57810	57811	57816	57817	57818	57814	57815
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	57812	57813	57810	57811	57816	57817	57818	57814	57815
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdiff									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe					
		Control Type		TWSC	
		Method		HCM 2000	
		dI, Average Delay		20.75	
		Worst Case Delay		61.54	
		Worst Case LOS		F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	197.00	55.00	141.00	304.00	81.00	218.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	218.89	61.11	156.67	337.78	90.00	242.22

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			218.89	61.11	156.67		90.00	242.22
Conflicting Volume (Veh)	337.78			479.44	313.33	0.00		651.11	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	337.78			479.44	313.33	0.00		651.11	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1232.72			494.90	605.27	1629.70		388.95	1087.94
Capacity	1232.72			287.01	547.09	1629.70		351.56	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	218.89	61.11	156.67	337.78	90.00	242.22
cmx, Capacity	1232.72			287.01	547.09	1629.70		351.56	1087.94
V / C	0.00			0.76	0.11	0.10		0.26	0.22
d, Delay	7.92			61.54	55.58	7.44		19.91	12.98
LOS	A			F	F	A		C	B
dA, Approach Delay	2.64			60.24		2.36		14.86	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	280.00	156.67	337.78	332.22
Flared Storage Size					
cmx, Capacity	1232.72	320.23			694.09
V / C	0.00	0.87			0.48
Q95, 95% Queue Length	0.00	8.04			2.60
d, Delay	2.64	60.24			14.86
LOS	A	F			B
dA, Approach Delay	2.64	60.24	2.36		14.86
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				8.08								
Average LOS				A								
V/C				0.53								
Loss Time				9								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	286	45	15	37	71	78	529	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	75	12	4	10	19	21	139	3
Adjusted Volume	75	33	42	56	301	47	16	39	75	82	557	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57821	57822	57819	57820	57825	57826	57823	57824
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	348	55	75	82	571
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.14	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57821	57822	57819	57820	57825	57826	57823	57824
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.419	1.000	0.894	1.000	0.583	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.980	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	740	1695	1610	1530	1049	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57821	57822	57819	57820	57825	57826	57823	57824
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	348.42	54.74	74.74	82.11	570.53
s, Saturation Flow Rate	1461	1530	740	1695	1610	1530	1049	1758
c, Capacity	244	255	432	989	268	255	612	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.35	0.2	0.29	0.13	0.56
d1, Uniform Delay	13.49	12.85	3.38	3.93	12.94	13.14	3.39	4.63
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.62	0.99	1.71	2.90	0.46	2.18
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.00	4.92	14.65	16.04	3.85	6.80
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.79		15.45		6.43	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.08							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57821	57822	57819	57820	57825	57826	57823	57824
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.83	0.47	0.65	0.37	3.52
Q2, Second-term Queued	0.17	0.05	0.05	0.32	0.06	0.10	0.07	0.76
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.33	0.60	0.24	0.23	0.43	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.15	0.53	0.75	0.44	4.28
fB%, % Factor	1.90	1.96	1.97	1.83	1.95	1.93	1.96	1.71
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	3.93	1.04	1.45	0.86	7.32

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57821	57822	57819	57820	57825	57826	57823	57824
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.08	0.21	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57821	57822	57819	57820	57825	57826	57823	57824
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		570.53		107.37		348.42	
Volc, Adjusted Opposing F	0.57		5.71		1.13		3.48	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.46		0.00		0.00	
gu	6.00		18.54		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.11		1.42		1.72	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.42		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.42	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		3.83						
				Worst Case Delay		24.29						
				Worst Case LOS		C						

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	20.00	6.00	30.00	270.00	2.00	14.00	66.00	52.00	11.00	427.00	2.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	20.62	6.19	30.93	278.35	2.06	14.43	68.04	53.61	11.34	440.21	2.06

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	20.62	6.19	30.93			14.43	68.04	53.61	11.34		
Conflicting Volume (Veh)	865.98	806.19	279.38	442.27			818.56	806.19	441.24	280.41		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	865.98	806.19	279.38	442.27			818.56	806.19	441.24	280.41		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	275.79	308.76	764.28	1091.70			287.65	317.81	620.35	1293.79		
Capacity	201.49	294.75	764.28	1091.70			260.81	303.39	620.35	1293.79		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	20.62	6.19	30.93	278.35	2.06	14.43	68.04	53.61	11.34	440.21	2.06
cmx, Capacity	201.49	294.75	764.28	1091.70			260.81	303.39	620.35	1293.79		
V / C	0.01	0.07	0.01	0.03			0.06	0.22	0.09	0.01		
d, Delay	23.84	18.19	10.68	8.39			24.29	22.35	16.29	7.81		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.73			0.83			20.17			0.20		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	27.84	311.34	136.08	453.61
Flared Storage Size				
cmx, Capacity	334.71	1091.70	371.79	1293.79
V / C	0.08	0.29	0.37	0.35
Q95, 95% Queue Length	0.27	1.18	1.64	1.60
d, Delay	16.73	8.39	20.17	7.81
LOS	C	A	C	A
dA, Approach Delay	16.73	0.83	20.17	0.20
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.76								
Worst Case Delay				29.54								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	22.00	432.00	9.00	10.00	0.00	0.00	10.00	578.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	24.18	474.73	9.89	10.99	0.00	0.00	10.99	635.16	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	24.18			10.99	0.00	0.00	10.99		
Conflicting Volume (Veh)	1185.16	1196.15	479.67	646.15			1190.11	1195.60	640.66	484.62		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1185.16	1196.15	479.67	646.15			1190.11	1195.60	640.66	484.62		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	167.32	187.66	590.21	920.38			166.02	187.81	471.37	1037.88		
Capacity	162.65	180.80	590.21	920.38			157.67	180.94	471.37	1037.88		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	24.18	474.73	9.89	10.99	0.00	0.00	10.99	635.16	10.99
cmx, Capacity	162.65	180.80	590.21	920.38			157.67	180.94	471.37	1037.88		
V / C	0.03	0.02	0.01	0.03			0.07	0.00	0.00	0.01		
d, Delay	27.99	25.77	11.96	9.02			29.54	26.60	14.34	8.51		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	20.76			0.43			29.54			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	24.18	484.62	10.99	10.99	646.15
Flared Storage Size						
cmx, Capacity	241.66			157.67		
V / C	0.05			0.07		
Q95, 95% Queue Length	0.17			0.22		
d, Delay	20.76			29.54		
LOS	C			D		
dA, Approach Delay	20.76	0.43		29.54	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				13.38								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	50.00	80.00	96.00	4.00	85.00	36.00	7.00	60.00	3.00	217.00	117.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	59.52	95.24	114.29	4.76	101.19	42.86	8.33	71.43	3.57	258.33	139.29	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	269.05	148.81	83.33	416.67
Left Turn Flow Rate	59.52	4.76	8.33	258.33
Right Turn Flow Rate	114.29	42.86	3.57	19.05
PLT, Proportion LT	0.22	0.03	0.10	0.62
PRT, Proportion RT	0.42	0.29	0.04	0.05
PHV, Proportion HV	1.91	1.36	1.41	0.62
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.18	-0.14	0.02	0.11

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	269.05	148.81	83.33	416.67
hd initial	3.20	3.20	3.20	3.20
x initial	0.24	0.13	0.07	0.37
hd, iteration 1	4.74	4.72	5.12	4.73
Difference, iteration 1	1.54	1.52	1.92	1.53
hd, iteration 2	5.24	5.24	5.74	5.11
Difference, iteration 2	0.49	0.52	0.61	0.37
hd, iteration 3	5.37	5.39	5.91	5.23
Difference, iteration 3	0.14	0.16	0.18	0.12
hd, iteration 4	5.42	5.44	5.97	5.27
Difference, iteration 4	0.04	0.05	0.06	0.04
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.42	5.44	5.97	5.27
x final, Degree of Utilization	0.40	0.22	0.14	0.61

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	269.05	148.81	83.33	416.67
hd, Departure Headway	5.42	5.44	5.97	5.27
x, Degree of Utilization	0.40	0.22	0.14	0.61
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.42	3.44	3.97	3.27
Capacity	663.95	661.50	602.86	683.59
Delay	12.05	10.01	9.92	16.13
LOS	B	B	A	C
Q95, 95% Queue Length				
Approach Delay	12.05	10.01	9.92	16.13
Approach LOS	B	B	A	C
Intersection Delay	13.38			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.11	
Worst Case Delay	10.2	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	30.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	41.10	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		2.74	86.30
Conflicting Volume (Veh)			53.42		218.49	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		218.49	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		774.20	1025.79
Capacity			1565.04		741.56	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	41.10	2.74	86.30
cmx, Capacity			1565.04		741.56	1025.79
V / C			0.04		0.00	0.08
d, Delay			7.40		10.20	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.52		8.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	105.48	89.04
Flared Storage Size			
cmx, Capacity		1565.04	1013.84
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.29
d, Delay		7.40	8.89
LOS		A	A
dA, Approach Delay	0.00	4.52	8.89
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.3	
Worst Case Delay	18.5	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	491.00	14.00	1.00	381.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	545.56	15.56	1.11	423.33	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		15.56	1.11		
Conflicting Volume (Veh)	431.11		972.78	427.22		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	431.11		972.78	427.22		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1077.03		282.15	631.71		
Capacity	1077.03		282.15	631.71		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	545.56	15.56	1.11	423.33	7.78
cmx, Capacity	1077.03		282.15	631.71		
V / C	0.00		0.06	0.00		
d, Delay	8.34		18.50	11.44		
LOS	A		C	B		
dA, Approach Delay	0.00		18.03		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	545.56	16.67	431.11
Flared Storage Size			
cmx, Capacity	0.00	292.95	
V / C	0.00	0.06	
Q95, 95% Queue Length	0.00	0.18	
d, Delay	4.17	18.03	
LOS	A	C	
dA, Approach Delay	0.00	18.03	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	18.84	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	498.00	5.00	6.00	383.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	559.55	5.62	6.74	430.34	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		5.62	6.74		
Conflicting Volume (Veh)	435.96		1008.43	433.15		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	435.96		1008.43	433.15		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1134.54		268.71	626.88		
Capacity	1134.54		265.94	626.88		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	559.55	5.62	6.74	430.34	5.62
cmx, Capacity	1134.54		265.94	626.88		
V / C	0.01		0.02	0.01		
d, Delay	8.20		18.84	11.05		
LOS	A		C	B		
dA, Approach Delay	0.11		14.59		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.08				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	567.42	12.36	435.96
Flared Storage Size			
cmx, Capacity	1134.54	387.70	
V / C	0.50	0.03	
Q95, 95% Queue Length	2.88	0.10	
d, Delay	8.20	14.59	
LOS	A	B	
dA, Approach Delay	0.11	14.59	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.11	
Worst Case Delay	10.27	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	119.00	15.00	18.00	88.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	135.23	17.05	20.45	100.00

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			20.45	
Conflicting Volume (Veh)	284.66	143.75			152.27	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	284.66	143.75			152.27	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	709.85	858.15			1392.55	
Capacity	698.77	858.15			1392.55	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	135.23	17.05	20.45	100.00
cmx, Capacity	698.77	858.15			1392.55	
V / C	0.02	0.00			0.01	
d, Delay	10.27	9.32			7.62	
LOS	B	A			A	
dA, Approach Delay	10.27		0.00		1.29	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.12	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	152.27	120.45
Flared Storage Size			
cmx, Capacity	698.77		1392.55
V / C	0.02		0.09
Q95, 95% Queue Length	0.07		0.28
d, Delay	10.27		7.62
LOS	B		A
dA, Approach Delay	10.27	0.00	1.29
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.57	
Worst Case Delay	13.84	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	163.00	82.00	95.00	114.00	26.00	86.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	173.40	87.23	101.06	121.28	27.66	91.49

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			101.06		27.66	91.49
Conflicting Volume (Veh)			260.64		540.43	217.02
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			260.64		540.43	217.02
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1297.97		505.93	815.32
Capacity			1297.97		463.51	815.32

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	173.40	87.23	101.06	121.28	27.66	91.49
cmx, Capacity			1297.97		463.51	815.32
V / C			0.08		0.06	0.11
d, Delay			8.01		13.84	10.49
LOS			A		B	B
dA, Approach Delay	0.00		3.64		11.27	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.67			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	260.64	222.34	119.15
Flared Storage Size			
cmx, Capacity		1297.97	693.18
V / C		0.17	0.17
Q95, 95% Queue Length		0.62	0.62
d, Delay		8.01	11.27
LOS		A	B
dA, Approach Delay	0.00	3.64	11.27
Approach LOS			B

Scenario 5

Diverter at 37th Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	62.27
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	267	72	97	320	17	66	251	65	112	466	94
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	70	19	25	83	4	17	65	17	29	121	24
Adjusted Volume	40	278	75	101	333	18	69	261	68	117	485	98

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	7342	7343	7340	7341	7346	7347	7344	7345
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	353	101	351	69	329	117	583
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.05	0.00	0.21	0.00	0.17

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	7342	7343	7340	7341	7346	7347	7344	7345
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.992	1.000	0.969	1.000	0.975
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1751	1644	1727	1676	1704

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	7342	7343	7340	7341	7346	7347	7344	7345
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	353.13	101.04	351.04	68.75	329.17	116.67	583.33
s, Saturation Flow Rate	1710	1725	1644	1751	1644	1727	1676	1704
c, Capacity	46	471	91	500	117	549	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.11	0.7	0.59	0.6	0.97	1.13
d1, Uniform Delay	27.15	18.60	26.45	17.87	25.20	16.10	25.95	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	96.79	10.44	127.21	7.98	19.58	4.78	75.60	82.31
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	29.03	153.66	25.85	44.78	20.88	101.55	101.86
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.60		54.41		25.01		101.81	
Approach LOS	D		D		C		F	
dI, Intersection Delay	62.27							
Intersection LOS	E							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	7342	7343	7340	7341	7346	7347	7344	7345
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.02	1.57	4.88	1.04	4.32	1.81	9.07
Q2, Second-term Queued	0.40	1.33	2.15	1.12	0.25	0.78	1.46	11.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.50	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.35	3.72	6.00	1.28	5.10	3.27	20.90
fB%, % Factor	1.91	1.64	1.74	1.65	1.89	1.68	1.76	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.41	6.47	9.90	2.42	8.57	5.76	31.51

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	7342	7343	7340	7341	7346	7347	7344	7345
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.04	0.19	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	7342	7343	7340	7341	7346	7347	7344	7345
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		15.31	
Average LOS		B	
V/C		0.76	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	6	1757	17	21	39	18	22	1650	11	24	15	85
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	472	5	6	10	5	6	444	3	6	4	23
Adjusted Volume	6	1889	18	23	42	19	24	1774	12	26	16	91

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	7353	7354	7356	7352	7348	7349	7351	7357
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6	1889	18	84	24	1774	12	133
PLT, Proportion Left Turns	1.00	0.00	0.00	0.27	1.00	0.00	0.00	0.19
PRT, Proportion Right Turns	0.00	0.00	1.00	0.23	0.00	0.00	1.00	0.69

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	7353	7354	7356	7352	7348	7349	7351	7357
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.675	0.950	1.000	1.000	0.894
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.969	1.000	1.000	0.850	0.907
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1177	1710	3327	1530	1460

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	7353	7354	7356	7352	7348	7349	7351	7357
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6.45	1889.25	18.28	83.87	23.66	1774.19	11.83	133.33
s, Saturation Flow Rate	1710	3327	1530	1177	1710	3327	1530	1460
c, Capacity	29	2440	1122	128	71	2523	1160	158
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.23	0.77	0.02	0.66	0.33	0.7	0.01	0.84
d1, Uniform Delay	58.24	9.87	4.32	51.36	55.88	7.51	3.53	52.50
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	17.59	2.47	0.03	23.52	12.07	1.67	0.02	39.30
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.83	12.34	4.34	74.88	67.95	9.18	3.55	91.80
LOS	E	B	A	E	E	A	A	F
dA, Approach Delay	12.48			74.88	9.91			91.80
Approach LOS	B			E	A			F
dI, Intersection Delay	15.31							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	7353	7354	7356	7352	7348	7349	7351	7357
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.21	20.41	0.16	2.68	0.77	16.08	0.10	4.36
Q2, Second-term Queued	0.03	5.01	0.03	0.57	0.11	3.74	0.02	1.42
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.33	0.22	1.70	1.55	0.38
Q, Average Back of Queue	0.25	25.41	0.19	3.26	0.87	19.83	0.11	5.78
fB%, % Factor	1.98	1.50	1.98	1.76	1.92	1.51	1.99	1.66
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.49	38.20	0.38	5.74	1.68	29.93	0.22	9.58

Signal Timing Information								
Approach	N			E	S			W
Lane Group	7353	7354	7356	7352	7348	7349	7351	7357
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.07	0.01	0.53	0.01	0.09
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	7353	7354	7356	7352	7348	7349	7351	7357
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				22.58				25.81
PLT, Proportion LT in Lane				0.27				0.19
PLTo, Proportion LT in Op				0.19				0.27
LT Volume per Cycle				0.75				0.86
Vo, Opposing Flow				133.33				83.87
Volc, Adjusted Opposing F				4.44				2.80
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.33				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				9.64				5.58
gu				3.36				7.42
PL				0.27				0.19
de facto caused by PL >=								
EL1				1.45				1.37
EL2				5.16				2.66
gdif				7.31				3.63
fm				0.68				0.89
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	0.95	1.00	1.00	0.89

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.27								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	123	1655	87	130	215	148	193	1507	109	15	94	35
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	33	440	23	35	57	39	51	401	29	4	25	9
Adjusted Volume	131	1761	93	138	229	157	205	1603	116	16	100	37

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	131	1761	93	138	229	37	121	205	1603	116	16	100	37
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.724	1.000	1.000	1.000	0.950	1.000	1.000	0.539	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1278	3427	1515	1515	1676	3327	1500	970	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	130.85	1760.64	92.55	138.3	228.72	36.74	120.71	205.32	1603.19	115.96	15.96	100	37.23
s, Saturation Flow Rate	1676	3360	1515	1278	3427	1515	1515	1676	3327	1500	970	3427	1530
c, Capacity	335	1988	896	234	628	303	278	182	1664	750	178	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.39	0.89	0.1	0.59	0.36	0.12	0.43	1.13	0.96	0.15	0.09	0.16	0.13
d1, Uniform Delay	41.65	21.02	10.66	44.87	42.88	9.18	33.34	53.50	28.95	16.26	40.69	41.22	41.01
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.39	6.25	0.23	10.48	1.63	0.82	4.89	106.20	14.97	0.44	1.00	0.54	0.98
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	45.04	27.27	10.89	55.35	44.51	10.00	38.22	159.70	43.92	16.70	41.68	41.76	41.99
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.68			43.50				54.63			41.81		
Approach LOS	C			D				D			D		
dI, Intersection Delay	41.27												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.78	26.44	1.34	4.22	3.50	1.00	3.57	6.84	27.08	2.09	0.44	1.47	1.04
Q2, Second-term Queued	0.41	7.44	0.15	0.69	0.36	0.08	0.43	5.09	9.75	0.21	0.04	0.12	0.09
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.51	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	4.19	33.88	1.49	4.91	3.87	1.09	4.00	11.94	36.83	2.30	0.48	1.59	1.13
fB%, % Factor	1.72	1.50	1.87	1.69	1.73	1.90	1.72	1.55	1.50	1.82	1.95	1.86	1.90
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	7.20	50.84	2.79	8.29	6.69	2.07	6.90	18.46	55.26	4.18	0.94	2.97	2.14

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.08	0.52	0.06	0.11	0.07	0.02	0.08	0.12	0.48	0.08	0.02	0.03	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	7367	7368	7370	7362	7363	7365	7366	7358	7359	7361	7371	7372	7374
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				138.30							15.96		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				4.61							0.53		
Vo, Opposing Flow				100.00							228.72		
Volc, Adjusted Opposing F				1.84							4.20		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.00							3.37		
gu				22.00							18.63		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.38							1.57		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.72							0.54		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.72	1.00	1.00	1.00	0.95	1.00	1.00	0.54	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		54.32	
Average LOS		D	
V/C		0.98	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	277	1640	21	83	217	132	48	1598	44	7	285	53
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	72	427	5	22	57	34	13	416	11	2	74	14
Adjusted Volume	289	1708	22	86	226	138	50	1665	46	7	297	55

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	7391	7392	7394	7389	7385	7386	7388	7395
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	289	1708	22	450	50	1665	46	359
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.31	0.00	0.00	1.00	0.15

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	7391	7392	7394	7389	7385	7386	7388	7395
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.714	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.954	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2225	1613	3360	1471	3046

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	7391	7392	7394	7389	7385	7386	7388	7395
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	288.54	1708.33	21.88	450	50	1664.58	45.83	359.38
s, Saturation Flow Rate	1710	3327	1530	2225	1613	3360	1471	3046
c, Capacity	323	1869	859	510	149	1562	684	698
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.89	0.91	0.03	0.88	0.34	1.07	0.07	0.51
d1, Uniform Delay	47.45	23.69	11.70	44.69	50.99	32.10	17.73	40.42
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.84	8.42	0.05	19.43	5.96	42.44	0.19	2.70
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.30	32.11	11.75	64.12	56.95	74.54	17.91	43.12
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.20			64.12	72.57			43.12
Approach LOS	D			E	E			D
dI, Intersection Delay	54.32							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	7391	7392	7394	7389	7385	7386	7388	7395
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.38	26.94	0.32	7.61	1.56	29.14	0.84	5.50
Q2, Second-term Queued	3.07	8.24	0.03	2.54	0.18	15.36	0.08	0.71
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.56	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.46	35.18	0.36	10.15	1.74	44.50	0.92	6.21
fB%, % Factor	1.54	1.50	1.97	1.57	1.85	1.50	1.92	1.64
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.20	52.78	0.70	15.89	3.23	66.76	1.76	10.21

Signal Timing Information								
Approach	N			E	S			W
Lane Group	7391	7392	7394	7389	7385	7386	7388	7395
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.20	0.03	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	7391	7392	7394	7389	7385	7386	7388	7395
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				86.46				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.88				0.24
Vo, Opposing Flow				359.38				450.00
Volc, Adjusted Opposing F				6.29				7.88
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.18				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.84				9.98
gu				20.66				11.53
PL				0.53				0.04
de facto caused by PL >=								
EL1				1.88				2.07
EL2				23.19				0.00
gdif				0.00				0.00
fm				0.52				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.71	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.66
Worst Case Delay	12.08
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	424.00	55.00	381.00	153.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	465.93	60.44	418.68	168.13

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		502.75		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		502.75		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		568.75		
Capacity		568.75		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	465.93	60.44	418.68	168.13
cmx, Capacity		568.75		
V / C		0.11		
d, Delay		12.08		
LOS		B		
dA, Approach Delay	0.00	12.08	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	465.93	60.44	586.81
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.08	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.22	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	339	85	166	412
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	89	22	44	108
Adjusted Volume	89	118	357	89	175	434

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	7412	7411	7413	7415
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	446	175	434
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate					
Approach	N	E	W		
Lane Group	7412	7411	7413		7415
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800		1800
N, Number of Lanes	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000		3.000
fHV, HV Adjustment	1.000	0.971	0.990		0.971
fg, Grade Adjustment	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.384	1.000
fRT, Right Turn Adjustment	0.923	0.973	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000		1.000
Has Short Lane					
s, Saturation Flow Rate	1627	1700	1693	685	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	7412	7411	7413		7415
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	446.32	132	43	433.68
			175		
s, Saturation Flow Rate	1627	1700	1693	685	1748
			826		
c, Capacity	560	756	132	327	971
			459		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.59	1.00	0.13	0.45
			0.38		
d1, Uniform Delay	22.16	18.83	10.89		11.82
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	3.37	2.39		1.49
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.21	13.28		13.31
LOS	C	C	B		B
dA, Approach Delay	24.04	22.21	13.30		
Approach LOS	C	C	B		
dI, Intersection Delay	18.22				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	7412	7411	7413	7415
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.41	2.46	6.41
Q2, Second-term Queued	0.44	1.31	0.40	0.89
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.72	2.87	7.30
fB%, % Factor	1.71	1.57	1.78	1.62
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.27	5.11	11.80

Signal Timing Information					
Approach	N	E	W		
Lane Group	7412	7411	7413		7415
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.25
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	7412	7411	7413	7415	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				446.32	
Volc, Adjusted Opposing Flow				11.16	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.99	
gu				31.01	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.88	
EL2				0.00	
gdiff				0.00	
fm				0.38	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.38	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		7.17						
				Worst Case Delay		46.52						
				Worst Case LOS		E						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	40.00	395.00	57.00	1.00	64.00	69.00	22.00	295.00	27.00	23.00	65.00	34.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	43.96	434.07	62.64	1.10	70.33	75.82	24.18	324.18	29.67	25.27	71.43	37.36

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	43.96			1.10	70.33	75.82	24.18			25.27	71.43	37.36
Conflicting Volume (Veh)	353.85			995.05	971.98	339.01	496.70			1013.74	955.49	465.38
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	353.85			995.05	971.98	339.01	496.70			1013.74	955.49	465.38
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1177.66			225.53	254.50	703.28	1077.58			219.04	258.18	588.90
Capacity	1177.66			152.75	234.25	703.28	1077.58			141.38	237.64	588.90

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	43.96	434.07	62.64	1.10	70.33	75.82	24.18	324.18	29.67	25.27	71.43	37.36
cmx, Capacity	1177.66			152.75	234.25	703.28	1077.58			141.38	237.64	588.90
V / C	0.04			0.01	0.30	0.11	0.02			0.18	0.30	0.06
d, Delay	8.18			35.59	27.39	17.14	8.42			46.52	36.20	27.16
LOS	A			E	D	C	A			E	E	D
dA, Approach Delay	0.66			22.17			0.54			35.63		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.43						0.24					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	540.66	147.25	378.02	134.07
Flared Storage Size				
cmx, Capacity	1177.66	354.61	1077.58	246.99
V / C	0.46	0.42	0.35	0.54
Q95, 95% Queue Length	2.47	1.98	1.59	2.95
d, Delay	8.18	22.17	8.42	35.63
LOS	A	C	A	E
dA, Approach Delay	0.66	22.17	0.54	35.63
Approach LOS		C		E

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.88								
Worst Case Delay				13.34								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	111.00	21.00	81.00	20.00	15.00	9.00	35.00	64.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	120.65	22.83	88.04	21.74	16.30	9.78	38.04	69.57	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	120.65	22.83	88.04			9.78	38.04	69.57	5.43		
Conflicting Volume (Veh)	295.11	249.46	29.89	32.61			313.04	249.46	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	295.11	249.46	29.89	32.61			313.04	249.46	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	661.12	653.34	1036.06	1592.47			635.64	655.06	1057.68	1585.26		
Capacity	561.83	614.24	1036.06	1592.47			504.39	615.86	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	120.65	22.83	88.04	21.74	16.30	9.78	38.04	69.57	5.43	16.30	16.30
cmx, Capacity	561.83	614.24	1036.06	1592.47			504.39	615.86	1057.68	1585.26		
V / C	0.04	0.20	0.02	0.06			0.02	0.06	0.07	0.00		
d, Delay	13.34	12.79	10.40	7.39			12.91	11.62	9.18	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.53			5.16			10.28			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.42						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	165.22	126.09	117.39	38.04
Flared Storage Size				
cmx, Capacity	642.49	1592.47	798.91	1585.26
V / C	0.26	0.08	0.15	0.02
Q95, 95% Queue Length	1.02	0.26	0.51	0.07
d, Delay	12.53	7.39	10.28	7.28
LOS	B	A	B	A
dA, Approach Delay	12.53	5.16	10.28	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.44								
Worst Case Delay				34.21								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	131.00	4.00	81.00	31.00	97.00	29.00	126.00	137.00	5.00	20.00	51.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	148.24	161.18	5.88	23.53	60.00

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			95.29	36.47	114.12	34.12			5.88	23.53	60.00
Conflicting Volume (Veh)	309.41			784.71	747.65	228.82	158.82			820.59	825.88	156.47
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	309.41			784.71	747.65	228.82	158.82			820.59	825.88	156.47
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1245.44			311.61	343.52	810.43	1432.94			295.91	309.57	883.88
Capacity	1245.44			241.50	294.45	810.43	1432.94			205.40	265.36	883.88

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	148.24	161.18	5.88	23.53	60.00
cmx, Capacity	1245.44			241.50	294.45	810.43	1432.94			205.40	265.36	883.88
V / C	0.12			0.39	0.12	0.14	0.02			0.03	0.09	0.07
d, Delay	8.27			34.21	31.53	10.17	7.57			24.21	20.25	10.76
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.96			22.66			0.75			14.14		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	158.82	131.76	114.12	343.53	89.41
Flared Storage Size						
cmx, Capacity			254.15		1432.94	482.81
V / C			0.52		0.24	0.19
Q95, 95% Queue Length			2.74		0.94	0.67
d, Delay			33.47		7.57	14.14
LOS			D		A	B
dA, Approach Delay	3.96		22.66		0.75	14.14
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.2	
Worst Case Delay	15.27	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	35.00	16.00	296.00	43.00	19.00	310.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	37.23	17.02	314.89	45.74	20.21	329.79

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	37.23	17.02			20.21	
Conflicting Volume (Veh)	707.98	337.77			360.64	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	707.98	337.77			360.64	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	399.64	709.02			1209.15	
Capacity	391.35	709.02			1209.15	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	37.23	17.02	314.89	45.74	20.21	329.79
cmx, Capacity	391.35	709.02			1209.15	
V / C	0.10	0.02			0.02	
d, Delay	15.27	11.14			8.03	
LOS	C	B			A	
dA, Approach Delay	13.97		0.00		0.46	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	54.26	360.64	350.00
Flared Storage Size			
cmx, Capacity	455.35		1209.15
V / C	0.12		0.29
Q95, 95% Queue Length	0.40		1.21
d, Delay	13.97		8.03
LOS	B		A
dA, Approach Delay	13.97	0.00	0.46
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.63	
Worst Case Delay	22.76	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	406.00	5.00	23.00	661.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	414.29	5.10	23.47	674.49	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	679.59		1154.59	677.04		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	679.59		1154.59	677.04		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	908.00		219.78	449.32		
Capacity	908.00		212.12	449.32		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	414.29	5.10	23.47	674.49	5.10
cmx, Capacity	908.00		212.12	449.32		
V / C	0.03		0.02	0.05		
d, Delay	9.11		22.76	13.80		
LOS	A		C	B		
dA, Approach Delay	0.65		15.40		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	414.29	28.57	679.59
Flared Storage Size				
cmx, Capacity			374.53	
V / C			0.08	
Q95, 95% Queue Length			0.25	
d, Delay			15.40	
LOS			C	
dA, Approach Delay	0.65		15.40	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	8.21		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	53.00	9.00	5.00	103.00	12.00	7.00	45.00	5.00	10.00	114.00	18.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	56.38	9.57	5.32	109.57	12.77	7.45	47.87	5.32	10.64	121.28	19.15
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	60.64	151.06
Left Turn Flow Rate	24.47	5.32	7.45	10.64
Right Turn Flow Rate	9.57	12.77	5.32	19.15
PLT, Proportion LT	0.27	0.04	0.12	0.07
PRT, Proportion RT	0.11	0.10	0.09	0.13
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	60.64	151.06
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.11	0.05	0.13
hd, iteration 1	4.41	4.22	4.42	4.20
Difference, iteration 1	1.21	1.02	1.22	1.00
hd, iteration 2	4.58	4.36	4.60	4.33
Difference, iteration 2	0.17	0.14	0.18	0.13
hd, iteration 3	4.60	4.38	4.62	4.35
Difference, iteration 3	0.02	0.02	0.02	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.60	4.38	4.62	4.35
x final, Degree of Utilization	0.12	0.16	0.08	0.18

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	60.64	151.06
hd, Departure Headway	4.60	4.38	4.62	4.35
x, Degree of Utilization	0.12	0.16	0.08	0.18
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.60	2.38	2.62	2.35
Capacity	781.86	821.43	778.35	827.46
Delay	8.20	8.19	8.01	8.31
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.20	8.19	8.01	8.31
Approach LOS	A	A	A	A
Intersection Delay	8.21			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.21	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	121.00	86.00	1.00	101.00	261.00	221.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	132.97	94.51	1.10	110.99	286.81	242.86
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	227.47	1.10	397.80	242.86
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	94.51	1.10	286.81	242.86
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.42	1.00	0.72	1.00
PHV, Proportion HV	3.25	0.00	1.72	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.19	-0.60	-0.40	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	227.47	1.10	397.80	242.86
hd initial	3.20	3.20	3.20	3.20
x initial	0.20	0.00	0.35	0.22
hd, iteration 1	4.45	3.69	3.66	4.00
Difference, iteration 1	1.25	0.49	0.46	0.80
hd, iteration 2	4.62	3.85	3.73	4.10
Difference, iteration 2	0.16	0.15	0.07	0.10
hd, iteration 3	4.64	3.87	3.74	4.12
Difference, iteration 3	0.02	0.02	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.64	3.87	3.74	4.12
x final, Degree of Utilization	0.29	0.00	0.41	0.28

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	227.47	1.10	397.80	242.86
hd, Departure Headway	4.64	3.87	3.74	4.12
x, Degree of Utilization	0.29	0.00	0.41	0.28
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.64	1.87	1.74	2.12
Capacity	775.94	930.96	962.46	873.95
Delay	9.55	6.87	9.34	8.69
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	9.55	6.87	9.34	8.69
Approach LOS	A	A	A	A
Intersection Delay	9.21			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.77	
Worst Case Delay	28.56	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	140.00	150.00	134.00	42.00	306.00	186.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	142.86	153.06	136.73	42.86	312.24	189.80

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	142.86		136.73	42.86		
Conflicting Volume (Veh)	502.04		845.92	407.14		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	502.04		845.92	407.14		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1072.71		335.38	646.14		
Capacity	1072.71		286.29	646.14		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	142.86	153.06	136.73	42.86	312.24	189.80
cmx, Capacity	1072.71		286.29	646.14		
V / C	0.13		0.48	0.07		
d, Delay	8.87		28.56	10.97		
LOS	A		D	B		
dA, Approach Delay	4.28		24.36		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.30				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	295.92	136.73	42.86	502.04
Flared Storage Size				
cmx, Capacity	1072.71			
V / C	0.28			
Q95, 95% Queue Length	1.13			
d, Delay	8.87			
LOS	A			
dA, Approach Delay	4.28	24.36		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.47	
Worst Case Delay	14.94	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	263.00	31.00	9.00	303.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	295.51	34.83	10.11	340.45

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			10.11	
Conflicting Volume (Veh)	673.60	312.92			330.34	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	673.60	312.92			330.34	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	423.29	732.05			1240.48	
Capacity	418.98	732.05			1240.48	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	295.51	34.83	10.11	340.45
cmx, Capacity	418.98	732.05			1240.48	
V / C	0.12	0.03			0.01	
d, Delay	14.94	11.26			7.93	
LOS	B	B			A	
dA, Approach Delay	13.73		0.00		0.23	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	330.34	350.56
Flared Storage Size			
cmx, Capacity	487.42		1240.48
V / C	0.15		0.28
Q95, 95% Queue Length	0.54		1.17
d, Delay	13.73		7.93
LOS	B		A
dA, Approach Delay	13.73	0.00	0.23
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.8	
Average LOS		A	
V/C		0.6	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	33	220	140	49	305	26	0	90	64	106	448	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	9	59	38	13	82	7	0	24	17	28	120	1
Adjusted Volume	35	237	151	53	328	28	0	97	69	114	482	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	7442	7443	7440	7441	7446	7447	7444	7445
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	272	151	53	356	97	69	114	487
PLT, Proportion Left Turns	0.13	0.00	1.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.08	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	7442	7443	7440	7441	7446	7447	7444	7445
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.962	1.000	0.422	1.000	1.000	1.000	0.570	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.988	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1697	1485	759	1744	1782	1530	950	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	7442	7443	7440	7441	7446	7447	7444	7445
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	272.04	150.54	52.69	355.91	96.77	68.82	113.98	487.1
s, Saturation Flow Rate	1697	1485	759	1744	1782	1530	950	1762
c, Capacity	509	446	329	756	535	459	412	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.53	0.34	0.16	0.47	0.18	0.15	0.28	0.64
d1, Uniform Delay	8.75	8.18	5.18	6.05	7.77	7.70	5.47	6.66
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.98	2.05	1.04	2.10	0.74	0.69	1.66	4.05
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.73	10.23	6.22	8.15	8.51	8.39	7.14	10.71
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	11.84		7.90		8.46		10.03	
Approach LOS	B		A		A		B	
dI, Intersection Delay	9.8							
Intersection LOS	A							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	7442	7443	7440	7441	7446	7447	7444	7445
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.89	0.98	0.27	2.11	0.60	0.42	0.61	3.18
Q2, Second-term Queued	0.37	0.15	0.05	0.38	0.08	0.05	0.11	0.76
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.33	0.30	0.24	0.44	0.34	0.31	0.28	0.44
Q, Average Back of Queue	2.26	1.13	0.31	2.50	0.67	0.47	0.72	3.94
fB%, % Factor	1.82	1.90	1.97	1.80	1.94	1.95	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.12	2.15	0.62	4.50	1.30	0.93	1.39	6.80

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	7442	7443	7440	7441	7446	7447	7444	7445
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.16	0.10	0.07	0.20	0.05	0.04	0.12	0.28
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	7442	7443	7440	7441	7446	7447	7444	7445
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	35.48		52.69				113.98	
PLT, Proportion LT in Lane	0.13		1.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	0.30		0.44				0.95	
Vo, Opposing Flow	96.77		487.10				355.91	
Volc, Adjusted Opposing F	0.85		4.06				2.97	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	2.04		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.31				0.19	
gu	6.96		10.69				12.81	
PL	0.13		1.00				1.00	
de facto caused by PL >=								
EL1	1.40		1.95				1.73	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.96		0.42				0.57	
fLT, Left Turn Adjustment	0.96	1.00	0.42	1.00	1.00	1.00	0.57	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	22.96
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	78.00	225.00	32.00	64.00	11.00	77.00	180.00	27.00	349.00	44.00	62.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	82.11	236.84	33.68	67.37	11.58	81.05	189.47	28.42	367.37	46.32	65.26
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	95.79	236.84	101.05	11.58	298.95	413.68	65.26
Left Turn Flow Rate	13.68	0.00	33.68	0.00	81.05	367.37	0.00
Right Turn Flow Rate	0.00	236.84	0.00	11.58	28.42	0.00	65.26
PLT, Proportion LT	0.14	0.00	0.33	0.00	0.27	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.10	0.00	1.00
PHV, Proportion HV	0.00	3.00	2.00	0.00	0.63	1.78	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.07	-0.65	0.20	-0.70	0.01	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	95.79	236.84	101.05	11.58	298.95	413.68	65.26
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.09	0.21	0.09	0.01	0.27	0.37	0.06
hd, iteration 1	5.73	5.01	6.08	5.17	5.71	6.07	4.89
Difference, iteration 1	2.53	1.81	2.88	1.97	2.51	2.87	1.69
hd, iteration 2	6.78	6.06	7.21	6.29	6.67	6.83	5.64
Difference, iteration 2	1.05	1.05	1.13	1.12	0.96	0.75	0.75
hd, iteration 3	7.13	6.40	7.66	6.74	6.99	7.15	5.95
Difference, iteration 3	0.34	0.34	0.45	0.45	0.33	0.32	0.32
hd, iteration 4	7.27	6.54	7.83	6.90	7.12	7.26	6.06
Difference, iteration 4	0.14	0.14	0.16	0.16	0.13	0.11	0.11
hd, iteration 5	7.32	6.59	7.89	6.97	7.17	7.30	6.10
Difference, iteration 5	0.05	0.05	0.06	0.06	0.05	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headw	7.32	6.59	7.89	6.97	7.17	7.30	6.10
x final, Degree of Utilizatio	0.19	0.43	0.22	0.02	0.60	0.84	0.11

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				61.88								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	120	247	18	357	304	74	34	238	416	27	292	40
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	64	5	92	78	19	9	61	107	7	75	10
Adjusted Volume	124	255	19	368	313	76	35	245	429	28	301	41

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	7450	7451	7448	7449	7454	7455	7456	7452	7453
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	124	273	368	390	280	114	315	28	342
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.07	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	7450	7451	7448	7449	7454	7455	7456	7452	7453
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.990	1.000	0.971	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	7450	7451	7448	7449	7454	7455	7456	7452	7453
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123.71	273.2	368.04	389.69	280.41	114.36	314.5	27.84	342.27
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1767
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.44	0.97	0.99	0.55	0.85	0.34	1.1	0.49	0.87
d1, Uniform Delay	33.71	37.25	34.88	20.14	35.24	7.85	26.77	42.75	33.76
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	4.89	45.51	43.70	3.02	22.58	2.73	82.38	26.98	22.39
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.60	82.76	78.58	23.17	57.82	10.58	109.14	69.72	56.15
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	68.99		50.08		72.96			57.17	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.88								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	7450	7451	7448	7449	7454	7455	7456	7452	7453
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.78	6.78	9.17	7.41	6.77	2.41	7.86	0.68	8.25
Q2, Second-term Queued	0.36	3.46	4.86	1.06	2.17	0.27	6.45	0.14	2.79
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.14	10.24	14.03	8.47	8.94	2.68	14.31	0.83	11.04
fB%, % Factor	1.77	1.56	1.53	1.59	1.58	1.79	1.53	1.92	1.55
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.55	16.02	21.46	13.48	14.15	4.80	21.87	1.59	17.17

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	7450	7451	7448	7449	7454	7455	7456	7452	7453
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	7450	7451	7448	7449	7454	7455	7456	7452	7453
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe					
		Control Type		TWSC	
		Method		HCM 2000	
		dI, Average Delay		24.16	
		Worst Case Delay		89.22	
		Worst Case LOS		F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	165.00	0.00	208.00	193.00	82.00	244.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	183.33	0.00	231.11	214.44	91.11	271.11

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			183.33	0.00	231.11		91.11	271.11
Conflicting Volume (Veh)	214.44			643.33	462.22	0.00		676.67	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	214.44			643.33	462.22	0.00		676.67	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1367.60			384.80	499.52	1629.70		376.05	1087.94
Capacity	1367.60			202.49	428.68	1629.70		322.72	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjusted	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjusted	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	183.33	0.00	231.11	214.44	91.11	271.11
cmx, Capacity	1367.60			202.49	428.68	1629.70		322.72	1087.94
V / C	0.00			0.91	0.00	0.14		0.28	0.25
d, Delay	7.63			89.22	79.84	7.57		21.99	14.14
LOS	A			F	F	A		C	B
dA, Approach Delay	2.54			89.22		3.93		16.11	
Approach LOS				F				C	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	183.33	231.11	214.44	362.22
Flared Storage Size					
cmx, Capacity	1367.60	202.49			681.49
V / C	0.00	0.91			0.53
Q95, 95% Queue Length	0.00	7.18			3.15
d, Delay	2.54	89.22			16.11
LOS	A	F			C
dA, Approach Delay	2.54	89.22	3.93		16.11
Approach LOS		F			C

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.02	
Average LOS		A	
V/C		0.52	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	297	45	15	37	71	78	517	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	78	12	4	10	19	21	136	3
Adjusted Volume	75	33	42	56	313	47	16	39	75	82	544	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	7459	7460	7457	7458	7463	7464	7461	7462
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	360	55	75	82	558
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	7459	7460	7457	7458	7463	7464	7461	7462
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.429	1.000	0.894	1.000	0.577	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.980	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	758	1697	1610	1530	1038	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	7459	7460	7457	7458	7463	7464	7461	7462
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	360	54.74	74.74	82.11	557.89
s, Saturation Flow Rate	1461	1530	758	1697	1610	1530	1038	1758
c, Capacity	244	255	442	990	268	255	605	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.36	0.2	0.29	0.14	0.54
d1, Uniform Delay	13.49	12.85	3.37	3.97	12.94	13.14	3.39	4.58
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.59	1.04	1.71	2.90	0.47	2.07
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	3.96	5.00	14.65	16.04	3.86	6.65
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.86		15.45		6.29	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.02							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	7459	7460	7457	7458	7463	7464	7461	7462
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.90	0.47	0.65	0.37	3.40
Q2, Second-term Queued	0.17	0.05	0.05	0.34	0.06	0.10	0.07	0.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.42	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.24	0.53	0.75	0.44	4.13
fB%, % Factor	1.90	1.96	1.97	1.82	1.95	1.93	1.96	1.72
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	4.08	1.04	1.45	0.86	7.09

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	7459	7460	7457	7458	7463	7464	7461	7462
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.21	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	7459	7460	7457	7458	7463	7464	7461	7462
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		557.89		107.37		360.00	
Volc, Adjusted Opposing F	0.57		5.58		1.13		3.60	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.24		0.00		0.00	
gu	6.00		18.76		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.08		1.42		1.73	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				6.23								
Worst Case Delay				47.6								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	18.00	6.00	84.00	311.00	4.00	32.00	62.00	35.00	12.00	518.00	0.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	18.56	6.19	86.60	320.62	4.12	32.99	63.92	36.08	12.37	534.02	0.00

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	18.56	6.19	86.60			32.99	63.92	36.08	12.37		
Conflicting Volume (Veh)	1104.64	1054.64	322.68	534.02			1067.01	1056.70	534.02	324.74		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1104.64	1054.64	322.68	534.02			1067.01	1056.70	534.02	324.74		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	189.94	220.25	722.91	1008.86			194.52	226.95	549.97	1246.35		
Capacity	122.02	194.03	722.91	1008.86			162.69	199.93	549.97	1246.35		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	18.56	6.19	86.60	320.62	4.12	32.99	63.92	36.08	12.37	534.02	0.00
cmx, Capacity	122.02	194.03	722.91	1008.86			162.69	199.93	549.97	1246.35		
V / C	0.01	0.10	0.01	0.09			0.20	0.32	0.07	0.01		
d, Delay	36.49	25.54	11.97	8.90			47.60	43.47	32.01	7.92		
LOS	E	D	B	A			E	E	D	A		
dA, Approach Delay	22.72			1.87			41.39			0.18		
Approach LOS	C						E					
dRank1, Rank 1 Delay				0.94						0.11		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	25.77	411.34	132.99	546.39
Flared Storage Size				
cmx, Capacity	228.80	1008.86	226.14	1246.35
V / C	0.11	0.41	0.59	0.44
Q95, 95% Queue Length	0.38	2.01	3.33	2.28
d, Delay	22.72	8.90	41.39	7.92
LOS	C	A	E	A
dA, Approach Delay	22.72	1.87	41.39	0.18
Approach LOS	C		E	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.83								
Worst Case Delay				30.08								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	23.00	434.00	9.00	12.00	0.00	0.00	10.00	577.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	25.27	476.92	9.89	13.19	0.00	0.00	10.99	634.07	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	25.27			13.19	0.00	0.00	10.99		
Conflicting Volume (Veh)	1188.46	1199.45	481.87	645.05			1193.41	1198.90	639.56	486.81		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1188.46	1199.45	481.87	645.05			1193.41	1198.90	639.56	486.81		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	166.45	186.82	588.53	921.25			165.16	186.96	472.05	1035.90		
Capacity	161.66	179.77	588.53	921.25			156.69	179.90	472.05	1035.90		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	25.27	476.92	9.89	13.19	0.00	0.00	10.99	634.07	10.99
cmx, Capacity	161.66	179.77	588.53	921.25			156.69	179.90	472.05	1035.90		
V / C	0.03	0.02	0.01	0.03			0.08	0.00	0.00	0.01		
d, Delay	28.14	25.89	11.98	9.02			30.08	27.11	14.73	8.51		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	20.85			0.45			30.08			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	25.27	486.81	13.19	10.99	645.05
Flared Storage Size						
cmx, Capacity	240.35			156.69		
V / C	0.05			0.08		
Q95, 95% Queue Length	0.17			0.27		
d, Delay	20.85			30.08		
LOS	C			D		
dA, Approach Delay	20.85	0.45		30.08	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	11.03		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	55.00	78.00	52.00	4.00	57.00	36.00	6.00	102.00	15.00	155.00	95.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	65.48	92.86	61.90	4.76	67.86	42.86	7.14	121.43	17.86	184.52	113.10	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	220.24	115.48	146.43	316.67
Left Turn Flow Rate	65.48	4.76	7.14	184.52
Right Turn Flow Rate	61.90	42.86	17.86	19.05
PLT, Proportion LT	0.30	0.04	0.05	0.58
PRT, Proportion RT	0.28	0.37	0.12	0.06
PHV, Proportion HV	1.83	1.18	4.02	0.58
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.08	-0.19	0.01	0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	220.24	115.48	146.43	316.67
hd initial	3.20	3.20	3.20	3.20
x initial	0.20	0.10	0.13	0.28
hd, iteration 1	4.68	4.60	4.83	4.71
Difference, iteration 1	1.48	1.40	1.63	1.51
hd, iteration 2	5.09	5.06	5.28	5.05
Difference, iteration 2	0.41	0.46	0.45	0.34
hd, iteration 3	5.20	5.18	5.40	5.15
Difference, iteration 3	0.11	0.12	0.12	0.10
hd, iteration 4	5.23	5.21	5.43	5.18
Difference, iteration 4	0.03	0.03	0.03	0.03
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.23	5.21	5.43	5.18
x final, Degree of Utilization	0.32	0.17	0.22	0.46

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	220.24	115.48	146.43	316.67
hd, Departure Headway	5.23	5.21	5.43	5.18
x, Degree of Utilization	0.32	0.17	0.22	0.46
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.23	3.21	3.43	3.18
Capacity	688.03	690.15	662.93	695.18
Delay	10.67	9.26	9.96	12.43
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	10.67	9.26	9.96	12.43
Approach LOS	B	A	A	B
Intersection Delay	11.03			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.14	
Worst Case Delay	10.19	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	29.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	39.73	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		2.74	86.30
Conflicting Volume (Veh)			53.42		217.12	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		217.12	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		775.59	1025.79
Capacity			1565.04		742.92	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	39.73	2.74	86.30
cmx, Capacity			1565.04		742.92	1025.79
V / C			0.04		0.00	0.08
d, Delay			7.40		10.19	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.58		8.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	104.11	89.04
Flared Storage Size			
cmx, Capacity		1565.04	1013.91
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.29
d, Delay		7.40	8.89
LOS		A	A
dA, Approach Delay	0.00	4.58	8.89
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.26	
Worst Case Delay	18.14	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	481.00	12.00	1.00	379.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	534.44	13.33	1.11	421.11	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		13.33	1.11		
Conflicting Volume (Veh)	428.89		959.44	425.00		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	428.89		959.44	425.00		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1079.11		287.33	633.52		
Capacity	1079.11		287.33	633.52		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	534.44	13.33	1.11	421.11	7.78
cmx, Capacity	1079.11		287.33	633.52		
V / C	0.00		0.05	0.00		
d, Delay	8.34		18.14	11.29		
LOS	A		C	B		
dA, Approach Delay	0.00		17.61		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	534.44	14.44	428.89
Flared Storage Size			
cmx, Capacity	0.00	299.94	
V / C	0.00	0.05	
Q95, 95% Queue Length	0.00	0.15	
d, Delay	4.17	17.61	
LOS	A	C	
dA, Approach Delay	0.00	17.61	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.23	
Worst Case Delay	18.51	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	6.00	487.00	5.00	6.00	381.00	6.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	6.74	547.19	5.62	6.74	428.09	6.74

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	6.74		5.62	6.74		
Conflicting Volume (Veh)	434.83		992.13	431.46		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	434.83		992.13	431.46		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1135.62		274.77	628.25		
Capacity	1135.62		272.37	628.25		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	6.74	547.19	5.62	6.74	428.09	6.74
cmx, Capacity	1135.62		272.37	628.25		
V / C	0.01		0.02	0.01		
d, Delay	8.19		18.51	11.03		
LOS	A		C	B		
dA, Approach Delay	0.10		14.43		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.07				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	553.93	12.36	434.83
Flared Storage Size			
cmx, Capacity	1135.62	394.15	
V / C	0.49	0.03	
Q95, 95% Queue Length	2.75	0.10	
d, Delay	8.19	14.43	
LOS	A	B	
dA, Approach Delay	0.10	14.43	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.16	
Worst Case Delay	10.24	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	116.00	15.00	19.00	85.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	131.82	17.05	21.59	96.59

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			21.59	
Conflicting Volume (Veh)	280.11	140.34			148.86	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	280.11	140.34			148.86	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	714.10	861.98			1396.59	
Capacity	702.40	861.98			1396.59	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	131.82	17.05	21.59	96.59
cmx, Capacity	702.40	861.98			1396.59	
V / C	0.02	0.00			0.02	
d, Delay	10.24	9.30			7.62	
LOS	B	A			A	
dA, Approach Delay	10.24		0.00		1.39	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.12	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	148.86	118.18
Flared Storage Size			
cmx, Capacity	702.40		1396.59
V / C	0.02		0.08
Q95, 95% Queue Length	0.07		0.28
d, Delay	10.24		7.62
LOS	B		A
dA, Approach Delay	10.24	0.00	1.39
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	3.51	
Worst Case Delay	13.73	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	162.00	81.00	94.00	114.00	24.00	85.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	172.34	86.17	100.00	121.28	25.53	90.43

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			100.00		25.53	90.43
Conflicting Volume (Veh)			258.51		536.70	215.43
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			258.51		536.70	215.43
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1300.31		508.45	817.00
Capacity			1300.31		466.34	817.00

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	172.34	86.17	100.00	121.28	25.53	90.43
cmx, Capacity			1300.31		466.34	817.00
V / C			0.08		0.05	0.11
d, Delay			8.00		13.73	10.42
LOS			A		B	B
dA, Approach Delay	0.00		3.61		11.15	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.66			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	258.51	221.28	115.96
Flared Storage Size			
cmx, Capacity		1300.31	700.95
V / C		0.17	0.17
Q95, 95% Queue Length		0.61	0.59
d, Delay		8.00	11.15
LOS		A	B
dA, Approach Delay	0.00	3.61	11.15
Approach LOS			B

Scenario 6

Diverter at 42nd Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	60.86
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	267	72	95	319	14	70	256	65	110	461	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	70	19	25	83	4	18	67	17	29	120	25
Adjusted Volume	40	278	75	99	332	15	73	267	68	115	480	100

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	28707	28708	28705	28706	28711	28712	28709	28710
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	353	99	347	73	334	115	580
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.04	0.00	0.20	0.00	0.17

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	28707	28708	28705	28706	28711	28712	28709	28710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.994	1.000	0.970	1.000	0.974
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1754	1644	1728	1676	1702

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	28707	28708	28705	28706	28711	28712	28709	28710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	353.13	98.96	346.88	72.92	334.38	114.58	580.21
s, Saturation Flow Rate	1710	1725	1644	1754	1644	1728	1676	1702
c, Capacity	46	471	91	501	117	549	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.09	0.69	0.62	0.61	0.96	1.13
d1, Uniform Delay	27.15	18.60	26.45	17.81	25.26	16.15	25.91	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	96.79	10.44	119.93	7.66	22.21	4.96	71.33	80.36
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	29.03	146.38	25.47	47.47	21.11	97.24	99.91
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.60		52.31		25.83		99.47	
Approach LOS	D		D		C		F	
dI, Intersection Delay	60.86							
Intersection LOS	E							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	28707	28708	28705	28706	28711	28712	28709	28710
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.02	1.54	4.80	1.10	4.40	1.78	9.03
Q2, Second-term Queued	0.40	1.33	1.96	1.08	0.29	0.81	1.34	11.54
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.35	3.50	5.88	1.39	5.21	3.12	20.56
fB%, % Factor	1.91	1.64	1.75	1.65	1.88	1.68	1.77	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.41	6.12	9.73	2.61	8.74	5.51	31.01

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	28707	28708	28705	28706	28711	28712	28709	28710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation Flow	0.02	0.20	0.06	0.20	0.04	0.19	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	28707	28708	28705	28706	28711	28712	28709	28710
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Multiple(M)								
Opposed by Single(S) or Multiple(M)								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opposing Flow								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane Group								
PLTo, Proportion LT in Opposing Flow								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing Flow								
FLUo, Opposing Lane Utilization								
Rpo, Opposing Platoon Ratio								
gf								
qro, Opposing Queue Ratio								
gq, Opposing Queue Clearance								
gu								
PL								
de facto caused by PL >= 0.5								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		15.69	
Average LOS		B	
V/C		0.77	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	6	1759	12	22	33	22	27	1622	10	24	16	88
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	473	3	6	9	6	7	436	3	6	4	24
Adjusted Volume	6	1891	13	24	35	24	29	1744	11	26	17	95

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	28718	28719	28721	28717	28713	28714	28716	28722
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6	1891	13	83	29	1744	11	138
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.19
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.69

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	28718	28719	28721	28717	28713	28714	28716	28722
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.642	0.950	1.000	1.000	0.896
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.961	1.000	1.000	0.850	0.907
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1112	1710	3327	1530	1463

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	28718	28719	28721	28717	28713	28714	28716	28722
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6.45	1891.4	12.9	82.8	29.03	1744.09	10.75	137.63
s, Saturation Flow Rate	1710	3327	1530	1112	1710	3327	1530	1463
c, Capacity	29	2440	1122	120	71	2523	1160	159
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.23	0.78	0.01	0.69	0.41	0.69	0.01	0.87
d1, Uniform Delay	58.24	9.89	4.30	51.54	56.06	7.36	3.53	52.66
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	17.59	2.48	0.02	27.49	16.37	1.58	0.01	43.27
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.83	12.37	4.32	79.04	72.42	8.94	3.54	95.93
LOS	E	B	A	E	E	A	A	F
dA, Approach Delay	12.53			79.04	9.94			95.93
Approach LOS	B			E	A			F
dI, Intersection Delay	15.69							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	28718	28719	28721	28717	28713	28714	28716	28722
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.21	20.46	0.12	2.66	0.94	15.51	0.09	4.52
Q2, Second-term Queued	0.03	5.03	0.02	0.62	0.15	3.56	0.01	1.58
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.32	0.22	1.70	1.55	0.38
Q, Average Back of Queue	0.25	25.49	0.13	3.28	1.09	19.07	0.10	6.10
fB%, % Factor	1.98	1.50	1.99	1.76	1.90	1.51	1.99	1.65
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.49	38.31	0.26	5.76	2.07	28.81	0.20	10.04

Signal Timing Information								
Approach	N			E	S			W
Lane Group	28718	28719	28721	28717	28713	28714	28716	28722
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.07	0.02	0.52	0.01	0.09
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	28718	28719	28721	28717	28713	28714	28716	28722
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				25.81
PLT, Proportion LT in Lane				0.29				0.19
PLTo, Proportion LT in Op				0.19				0.29
LT Volume per Cycle				0.79				0.86
Vo, Opposing Flow				137.63				82.80
Volc, Adjusted Opposing F				4.59				2.76
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				9.97				5.49
gu				3.03				7.51
PL				0.29				0.19
de facto caused by PL >=								
EL1				1.46				1.37
EL2				5.33				2.72
gdif				7.77				3.54
fm				0.64				0.90
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.64	0.95	1.00	1.00	0.90

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.29								
Average LOS				D								
V/C				0.86								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	94	1666	108	112	226	149	194	1475	90	21	158	24
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	25	443	29	30	60	40	52	392	24	6	42	6
Adjusted Volume	100	1772	115	119	240	159	206	1569	96	22	168	26

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	100	1772	115	119	240	37	122	206	1569	96	22	168	26
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.636	1.000	1.000	1.000	0.950	1.000	1.000	0.521	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1122	3427	1515	1515	1676	3327	1500	938	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	100	1772.34	114.89	119.15	240.43	36.99	121.52	206.38	1569.15	95.74	22.34	168.09	25.53
s, Saturation Flow Rate	1676	3360	1515	1122	3427	1515	1515	1676	3327	1500	938	3427	1530
c, Capacity	335	1988	896	206	628	303	278	182	1664	750	172	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.3	0.89	0.13	0.58	0.38	0.12	0.44	1.14	0.94	0.13	0.13	0.27	0.09
d1, Uniform Delay	40.84	21.17	10.83	44.77	43.04	9.18	33.36	53.50	28.39	16.02	40.99	42.08	40.70
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.27	6.56	0.30	11.35	1.76	0.82	4.95	108.20	12.17	0.35	1.56	1.04	0.64
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.10	27.73	11.12	56.12	44.80	10.01	38.30	161.70	40.55	16.37	42.55	43.12	41.34
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.54			43.39				52.68			42.85		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.29												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.84	26.81	1.69	3.63	3.70	1.01	3.60	6.88	25.99	1.70	0.62	2.53	0.71
Q2, Second-term Queued	0.27	7.67	0.19	0.60	0.39	0.08	0.43	5.20	8.75	0.17	0.06	0.23	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.46	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	3.11	34.49	1.88	4.23	4.09	1.09	4.03	12.08	34.75	1.87	0.68	2.76	0.76
fB%, % Factor	1.77	1.50	1.84	1.71	1.72	1.90	1.72	1.54	1.50	1.84	1.94	1.79	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	51.75	3.47	7.25	7.04	2.08	6.95	18.65	52.14	3.45	1.32	4.93	1.47

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.11	0.07	0.02	0.08	0.12	0.47	0.06	0.02	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	28732	28733	28735	28727	28728	28730	28731	28723	28724	28726	28736	28737	28739
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				119.15							22.34		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.97							0.74		
Vo, Opposing Flow				168.09							240.43		
Volc, Adjusted Opposing F				3.09							4.41		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.31							3.78		
gu				20.69							18.22		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.48							1.59		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.64							0.52		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.64	1.00	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type	Signalized		
Method	HCM 2000		
Average Delay	52		
Average LOS	D		
V/C	0.97		
Loss Time	14		

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	276	1642	21	78	218	159	47	1569	50	7	268	53
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	72	428	5	20	57	41	12	409	13	2	70	14
Adjusted Volume	288	1710	22	81	227	166	49	1634	52	7	279	55

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	28756	28757	28759	28754	28750	28751	28753	28760
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	288	1710	22	474	49	1634	52	342
PLT, Proportion Left Turns	1.00	0.00	0.00	0.17	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	28756	28757	28759	28754	28750	28751	28753	28760
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.744	0.950	1.000	1.000	0.945
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.948	1.000	1.000	0.850	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2300	1613	3360	1471	3039

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	28756	28757	28759	28754	28750	28751	28753	28760
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	287.5	1710.42	21.88	473.96	48.96	1634.38	52.08	341.67
s, Saturation Flow Rate	1710	3327	1530	2300	1613	3360	1471	3039
c, Capacity	323	1869	859	527	149	1562	684	696
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.89	0.92	0.03	0.9	0.33	1.05	0.08	0.49
d1, Uniform Delay	47.42	23.72	11.70	44.91	50.96	32.10	17.80	40.17
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.38	8.50	0.05	20.88	5.78	35.86	0.22	2.46
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.80	32.22	11.75	65.78	56.74	67.96	18.02	42.63
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.20			65.78	66.14			42.63
Approach LOS	D			E	E			D
dI, Intersection Delay	52							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	28756	28757	28759	28754	28750	28751	28753	28760
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.34	27.01	0.32	8.06	1.53	28.61	0.96	5.19
Q2, Second-term Queued	3.03	8.29	0.03	2.81	0.18	14.03	0.09	0.65
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.37	35.30	0.36	10.87	1.70	42.64	1.05	5.84
fB%, % Factor	1.54	1.50	1.97	1.56	1.86	1.50	1.91	1.66
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.07	52.96	0.70	16.92	3.16	63.97	2.00	9.67

Signal Timing Information								
Approach	N			E	S			W
Lane Group	28756	28757	28759	28754	28750	28751	28753	28760
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.03	0.49	0.04	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	28756	28757	28759	28754	28750	28751	28753	28760
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				81.25				7.29
PLT, Proportion LT in Lane				0.17				0.02
PLTo, Proportion LT in Op				0.02				0.17
LT Volume per Cycle				2.71				0.24
Vo, Opposing Flow				341.67				473.96
Volc, Adjusted Opposing F				5.98				8.30
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.54				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.24				10.85
gu				21.26				11.53
PL				0.46				0.04
de facto caused by PL >=								
EL1				1.84				2.12
EL2				20.53				0.00
gdif				0.00				0.00
fm				0.58				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.74	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.66
Worst Case Delay	12.04
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	422.00	55.00	381.00	145.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	463.74	60.44	418.68	159.34

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		498.35		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		498.35		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		572.02		
Capacity		572.02		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	463.74	60.44	418.68	159.34
cmx, Capacity		572.02		
V / C		0.11		
d, Delay		12.04		
LOS		B		
dA, Approach Delay	0.00	12.04	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	463.74	60.44	578.02
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.04	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.1	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	333	85	166	408
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	88	22	44	107
Adjusted Volume	89	118	351	89	175	429

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	28777	28776	28778	28780
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	440	175	429
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	28777	28776	28778	28780
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.390
fRT, Right Turn Adjustment	0.923	0.973	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1700	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	28777	28776	28778	28780	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	440	132	43	429.47
s, Saturation Flow Rate	1627	1700	175		1748
			1693	695	
			835		
c, Capacity	560	755	132	332	971
			464		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.58	1.00	0.13	0.44
			0.38		
d1, Uniform Delay	22.16	18.74	10.84		11.79
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	3.27	2.32		1.46
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.01	13.16		13.25
LOS	C	C	B		B
dA, Approach Delay	24.04	22.01	13.22		
Approach LOS	C	C	B		
dI, Intersection Delay	18.1				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	28777	28776	28778	28780
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.25	2.46	6.33
Q2, Second-term Queued	0.44	1.27	0.40	0.88
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.67	1.12
Q, Average Back of Queue	4.34	9.51	2.85	7.20
fB%, % Factor	1.71	1.57	1.78	1.62
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	14.98	5.09	11.66

Signal Timing Information					
Approach	N	E	W		
Lane Group	28777	28776	28778		28780
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.25
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	28777	28776	28778	28780	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				440.00	
Volc, Adjusted Opposing Flow				11.00	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.68	
gu				31.32	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.24								
Worst Case Delay				46.23								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	40.00	393.00	58.00	3.00	57.00	77.00	22.00	295.00	27.00	21.00	71.00	35.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	43.96	431.87	63.74	3.30	62.64	84.62	24.18	324.18	29.67	23.08	78.02	38.46

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	43.96			3.30	62.64	84.62	24.18			23.08	78.02	38.46
Conflicting Volume (Veh)	353.85			997.25	970.88	339.01	495.60			1012.64	953.85	463.74
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	353.85			997.25	970.88	339.01	495.60			1012.64	953.85	463.74
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1177.66			224.76	254.87	703.28	1078.59			219.42	258.76	590.17
Capacity	1177.66			147.78	234.61	703.28	1078.59			144.34	238.19	590.17

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	43.96	431.87	63.74	3.30	62.64	84.62	24.18	324.18	29.67	23.08	78.02	38.46
cmx, Capacity	1177.66			147.78	234.61	703.28	1078.59			144.34	238.19	590.17
V / C	0.04			0.02	0.27	0.12	0.02			0.16	0.33	0.07
d, Delay	8.18			35.99	26.97	16.75	8.41			46.23	36.40	27.39
LOS	A			E	D	C	A			E	E	D
dA, Approach Delay	0.67			21.42			0.54			35.54		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.43						0.24					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	539.56	150.55	378.02	139.56
Flared Storage Size				
cmx, Capacity	1177.66	367.55	1078.59	252.55
V / C	0.46	0.41	0.35	0.55
Q95, 95% Queue Length	2.46	1.94	1.59	3.05
d, Delay	8.18	21.42	8.41	35.54
LOS	A	C	A	E
dA, Approach Delay	0.67	21.42	0.54	35.54
Approach LOS		C		E

Node 13764: Fuller & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		8.77						
				Worst Case Delay		13.27						
				Worst Case LOS		B						

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	103.00	21.00	83.00	20.00	15.00	9.00	35.00	64.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	111.96	22.83	90.22	21.74	16.30	9.78	38.04	69.57	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	111.96	22.83	90.22			9.78	38.04	69.57	5.43		
Conflicting Volume (Veh)	299.46	253.80	29.89	32.61			313.04	253.80	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	299.46	253.80	29.89	32.61			313.04	253.80	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	656.79	649.71	1036.06	1592.47			635.64	651.44	1057.68	1585.26		
Capacity	557.34	609.92	1036.06	1592.47			509.72	611.54	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	111.96	22.83	90.22	21.74	16.30	9.78	38.04	69.57	5.43	16.30	16.30
cmx, Capacity	557.34	609.92	1036.06	1592.47			509.72	611.54	1057.68	1585.26		
V / C	0.04	0.18	0.02	0.06			0.02	0.06	0.07	0.00		
d, Delay	13.27	12.71	10.29	7.40			12.84	11.66	9.18	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.44			5.20			10.29			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.43						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	156.52	128.26	117.39	38.04
Flared Storage Size				
cmx, Capacity	639.92	1592.47	797.64	1585.26
V / C	0.24	0.08	0.15	0.02
Q95, 95% Queue Length	0.96	0.26	0.51	0.07
d, Delay	12.44	7.40	10.29	7.28
LOS	B	A	B	A
dA, Approach Delay	12.44	5.20	10.29	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.54								
Worst Case Delay				34.46								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	129.00	4.00	82.00	31.00	96.00	29.00	124.00	137.00	5.00	20.00	55.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	151.76	4.71	96.47	36.47	112.94	34.12	145.88	161.18	5.88	23.53	64.71

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			96.47	36.47	112.94	34.12			5.88	23.53	64.71
Conflicting Volume (Veh)	307.06			782.35	742.94	226.47	156.47			815.29	821.18	154.12
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	307.06			782.35	742.94	226.47	156.47			815.29	821.18	154.12
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1247.93			312.74	345.67	812.88	1435.77			298.35	311.52	886.55
Capacity	1247.93			241.24	296.41	812.88	1435.77			207.74	267.13	886.55

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	151.76	4.71	96.47	36.47	112.94	34.12	145.88	161.18	5.88	23.53	64.71
cmx, Capacity	1247.93			241.24	296.41	812.88	1435.77			207.74	267.13	886.55
V / C	0.12			0.40	0.12	0.14	0.02			0.03	0.09	0.07
d, Delay	8.27			34.46	31.68	10.14	7.57			24.01	20.16	10.75
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.99			22.88			0.76			13.93		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	156.47	132.94	112.94	341.18	94.12
Flared Storage Size						
cmx, Capacity			254.22		1435.77	496.97
V / C			0.52		0.24	0.19
Q95, 95% Queue Length			2.78		0.93	0.69
d, Delay			33.70		7.57	13.93
LOS			D		A	B
dA, Approach Delay	3.99		22.88		0.76	13.93
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.24	
Worst Case Delay	15.35	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	34.00	20.00	300.00	43.00	19.00	311.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	36.17	21.28	319.15	45.74	20.21	330.85

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	36.17	21.28			20.21	
Conflicting Volume (Veh)	713.30	342.02			364.89	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	713.30	342.02			364.89	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	396.77	705.14			1204.82	
Capacity	388.51	705.14			1204.82	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	36.17	21.28	319.15	45.74	20.21	330.85
cmx, Capacity	388.51	705.14			1204.82	
V / C	0.09	0.03			0.02	
d, Delay	15.35	11.19			8.04	
LOS	C	B			A	
dA, Approach Delay	13.81		0.00		0.46	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	57.45	364.89	351.06
Flared Storage Size			
cmx, Capacity	466.01		1204.82
V / C	0.12		0.29
Q95, 95% Queue Length	0.42		1.22
d, Delay	13.81		8.04
LOS	B		A
dA, Approach Delay	13.81	0.00	0.46
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.63	
Worst Case Delay	22.97	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	409.00	5.00	23.00	666.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	417.35	5.10	23.47	679.59	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	684.69		1162.76	682.14		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	684.69		1162.76	682.14		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	904.02		217.31	446.30		
Capacity	904.02		209.71	446.30		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	417.35	5.10	23.47	679.59	5.10
cmx, Capacity	904.02		209.71	446.30		
V / C	0.03		0.02	0.05		
d, Delay	9.13		22.97	13.87		
LOS	A		C	B		
dA, Approach Delay	0.64		15.50		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	417.35	28.57	684.69
Flared Storage Size				
cmx, Capacity			371.47	
V / C			0.08	
Q95, 95% Queue Length			0.25	
d, Delay			15.50	
LOS			C	
dA, Approach Delay	0.64		15.50	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				8.11								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	52.00	7.00	6.00	90.00	12.00	6.00	45.00	5.00	10.00	108.00	17.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	55.32	7.45	6.38	95.74	12.77	6.38	47.87	5.32	10.64	114.89	18.09
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	114.89	59.57	143.62
Left Turn Flow Rate	24.47	6.38	6.38	10.64
Right Turn Flow Rate	7.45	12.77	5.32	18.09
PLT, Proportion LT	0.28	0.06	0.11	0.07
PRT, Proportion RT	0.09	0.11	0.09	0.13
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.06	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	114.89	59.57	143.62
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.10	0.05	0.13
hd, iteration 1	4.39	4.21	4.38	4.18
Difference, iteration 1	1.19	1.01	1.18	0.98
hd, iteration 2	4.54	4.34	4.54	4.30
Difference, iteration 2	0.15	0.13	0.16	0.12
hd, iteration 3	4.56	4.35	4.56	4.32
Difference, iteration 3	0.02	0.02	0.02	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.56	4.35	4.56	4.32
x final, Degree of Utilization	0.11	0.14	0.08	0.17

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	114.89	59.57	143.62
hd, Departure Headway	4.56	4.35	4.56	4.32
x, Degree of Utilization	0.11	0.14	0.08	0.17
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.56	2.35	2.56	2.32
Capacity	788.77	826.47	789.13	832.81
Delay	8.13	8.06	7.93	8.22
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.13	8.06	7.93	8.22
Approach LOS	A	A	A	A
Intersection Delay	8.11			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				12.99								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	48.00	22.00	49.00	201.00	1.00	78.00	118.00	22.00	21.00	195.00	153.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	52.75	24.18	53.85	220.88	1.10	85.71	129.67	24.18	23.08	214.29	168.13
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	76.92	275.82	85.71	153.85	405.49
Left Turn Flow Rate	0.00	53.85	85.71	0.00	23.08
Right Turn Flow Rate	24.18	1.10	0.00	24.18	168.13
PLT, Proportion LT	0.00	0.20	1.00	0.00	0.06
PRT, Proportion RT	0.31	0.00	0.00	0.16	0.41
PHV, Proportion HV	2.94	2.79	1.00	1.16	0.94
hLT,adj, Headway adjustment	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.14	0.08	0.52	-0.09	-0.22

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	76.92	275.82	85.71	153.85	405.49
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.07	0.25	0.08	0.14	0.36
hd, iteration 1	5.22	4.83	6.21	5.60	4.42
Difference, iteration 1	2.02	1.63	3.01	2.40	1.22
hd, iteration 2	5.92	5.37	6.73	6.11	4.92
Difference, iteration 2	0.70	0.54	0.52	0.51	0.51
hd, iteration 3	6.16	5.52	6.92	6.30	5.06
Difference, iteration 3	0.23	0.15	0.19	0.19	0.13
hd, iteration 4	6.22	5.57	6.97	6.35	5.10
Difference, iteration 4	0.07	0.05	0.05	0.05	0.04
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headway	6.22	5.57	6.97	6.35	5.10
x final, Degree of Utilization	0.13	0.43	0.17	0.27	0.57

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	76.92	275.82	85.71	153.85	405.49
hd, Departure Headway	6.22	5.57	6.97	6.35	5.10
x, Degree of Utilization	0.13	0.43	0.17	0.27	0.57
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.22	3.57	4.67	4.05	3.10
Capacity	577.52	645.92	515.79	565.81	705.66
Delay	10.18	12.66	11.06	11.41	14.75
LOS	B	B	B	B	B
Q95, 95% Queue Length					
Approach Delay	10.18	12.66	11.28		14.75
Approach LOS	B	B	B		B
Intersection Delay	12.99				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.2	
Worst Case Delay	27.24	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	137.00	127.00	139.00	101.00	304.00	187.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	139.80	129.59	141.84	103.06	310.20	190.82

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	139.80		141.84	103.06		
Conflicting Volume (Veh)	501.02		814.80	405.61		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	501.02		814.80	405.61		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1073.64		349.84	647.42		
Capacity	1073.64		300.53	647.42		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	139.80	129.59	141.84	103.06	310.20	190.82
cmx, Capacity	1073.64		300.53	647.42		
V / C	0.13		0.47	0.16		
d, Delay	8.85		27.24	11.61		
LOS	A		D	B		
dA, Approach Delay	4.59		20.66		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.25				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	269.39	141.84	103.06	501.02
Flared Storage Size				
cmx, Capacity	1073.64			
V / C	0.25			
Q95, 95% Queue Length	1.00			
d, Delay	8.85			
LOS	A			
dA, Approach Delay	4.59	20.66		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.49	
Worst Case Delay	15.13	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	46.00	22.00	272.00	31.00	9.00	303.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	51.69	24.72	305.62	34.83	10.11	340.45

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	51.69	24.72			10.11	
Conflicting Volume (Veh)	683.71	323.03			340.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	683.71	323.03			340.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	417.57	722.59			1229.94	
Capacity	413.28	722.59			1229.94	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	51.69	24.72	305.62	34.83	10.11	340.45
cmx, Capacity	413.28	722.59			1229.94	
V / C	0.13	0.03			0.01	
d, Delay	15.13	11.40			7.95	
LOS	C	B			A	
dA, Approach Delay	13.92		0.00		0.23	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	76.40	340.45	350.56
Flared Storage Size			
cmx, Capacity	479.72		1229.94
V / C	0.16		0.29
Q95, 95% Queue Length	0.56		1.18
d, Delay	13.92		7.95
LOS	B		A
dA, Approach Delay	13.92	0.00	0.23
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.85	
Average LOS	A	
V/C	0.58	
Loss Time	8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	40	203	139	0	262	18	54	109	15	113	428	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	11	55	37	0	70	5	15	29	4	30	115	1
Adjusted Volume	43	218	149	0	282	19	58	117	16	122	460	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	28807	28808	28805	28806	28811	28812	28809	28810
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	261	149	0	301	175	16	122	466
PLT, Proportion Left Turns	0.16	0.00	0.00	0.00	0.33	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	28807	28808	28805	28806	28811	28812	28809	28810
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.935	1.000	0.445	1.000	0.840	1.000	0.608	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1650	1485	802	1748	1498	1530	1014	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	28807	28808	28805	28806	28811	28812	28809	28810
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	261.29	149.46	0	301.08	175.27	16.13	121.51	465.59
s, Saturation Flow Rate	1650	1485	802	1748	1498	1530	1014	1762
c, Capacity	495	446	347	757	449	459	439	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.53	0.34	0	0.4	0.39	0.04	0.28	0.61
d1, Uniform Delay	8.73	8.17	4.82	5.82	8.32	7.43	5.47	6.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.99	2.02	0.00	1.56	2.54	0.14	1.56	3.61
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.72	10.20	4.82	7.38	10.86	7.57	7.03	10.16
LOS	B	B	A	A	B	A	A	B
dA, Approach Delay	11.80		7.38		10.59		9.51	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.85							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	28807	28808	28805	28806	28811	28812	28809	28810
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.81	0.97	0.00	1.72	1.16	0.10	0.65	2.99
Q2, Second-term Queued	0.36	0.15	0.00	0.29	0.19	0.01	0.11	0.67
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.25	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.17	1.12	0.00	2.00	1.35	0.11	0.77	3.66
fB%, % Factor	1.82	1.90	2.00	1.83	1.88	1.99	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.95	2.13	0.00	3.68	2.54	0.21	1.48	6.37

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	28807	28808	28805	28806	28811	28812	28809	28810
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.16	0.10	0.00	0.17	0.12	0.01	0.12	0.26
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	28807	28808	28805	28806	28811	28812	28809	28810
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	43.01		0.00		58.06		121.51	
PLT, Proportion LT in Lane	0.16		0.00		0.33		1.00	
PLTo, Proportion LT in Op	0.30		0.00		0.10		0.00	
LT Volume per Cycle	0.36		0.00		0.48		1.01	
Vo, Opposing Flow	175.27		465.59		261.29		301.08	
Volc, Adjusted Opposing F	1.53		3.88		2.29		2.51	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.73		0.00		1.22		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.93		0.00		0.00	
gu	7.27		11.07		7.78		13.00	
PL	0.16		1.00		0.33		1.00	
de facto caused by PL >=								
EL1	1.53		1.91		1.68		1.64	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.94		0.45		0.84		0.61	
fLT, Left Turn Adjustment	0.94	1.00	0.45	1.00	0.84	1.00	0.61	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	21.92
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	179.00	144.00	51.00	53.00	11.00	12.00	232.00	27.00	340.00	44.00	57.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	188.42	151.58	53.68	55.79	11.58	12.63	244.21	28.42	357.89	46.32	60.00
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	202.11	151.58	109.47	11.58	285.26	404.21	60.00
Left Turn Flow Rate	13.68	0.00	53.68	0.00	12.63	357.89	0.00
Right Turn Flow Rate	0.00	151.58	0.00	11.58	28.42	0.00	60.00
PLT, Proportion LT	0.07	0.00	0.49	0.00	0.04	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.10	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.53	0.00	0.86	1.77	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.03	-0.65	0.27	-0.70	-0.04	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	202.11	151.58	109.47	11.58	285.26	404.21	60.00
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.18	0.13	0.10	0.01	0.25	0.36	0.05
hd, iteration 1	5.67	4.99	6.14	5.16	5.67	6.08	4.90
Difference, iteration 1	2.47	1.79	2.94	1.96	2.47	2.88	1.70
hd, iteration 2	6.71	6.02	7.27	6.28	6.66	6.86	5.67
Difference, iteration 2	1.04	1.03	1.13	1.12	0.99	0.78	0.77
hd, iteration 3	7.05	6.36	7.72	6.73	6.99	7.18	5.99
Difference, iteration 3	0.35	0.35	0.45	0.44	0.33	0.32	0.32
hd, iteration 4	7.19	6.50	7.88	6.88	7.12	7.29	6.10
Difference, iteration 4	0.14	0.14	0.16	0.16	0.13	0.11	0.11
hd, iteration 5	7.24	6.55	7.94	6.94	7.17	7.33	6.14
Difference, iteration 5	0.05	0.05	0.06	0.06	0.05	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headw	7.24	6.55	7.94	6.94	7.17	7.33	6.14
x final, Degree of Utilizatio	0.41	0.28	0.24	0.02	0.57	0.82	0.10

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				61.97								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	120	247	18	357	308	74	34	238	417	27	292	40
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	64	5	92	79	19	9	61	107	7	75	10
Adjusted Volume	124	255	19	368	318	76	35	245	430	28	301	41

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	28815	28816	28813	28814	28819	28820	28821	28817	28818
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	124	273	368	394	280	115	315	28	342
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.07	0.00	0.19	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	28815	28816	28813	28814	28819	28820	28821	28817	28818
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.990	1.000	0.971	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	28815	28816	28813	28814	28819	28820	28821	28817	28818
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123.71	273.2	368.04	393.81	280.41	114.64	315.26	27.84	342.27
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1767
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.44	0.97	0.99	0.55	0.85	0.34	1.1	0.49	0.87
d1, Uniform Delay	33.71	37.25	34.88	20.20	35.24	7.85	26.77	42.75	33.76
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	4.89	45.51	43.70	3.09	22.58	2.74	83.26	26.98	22.39
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.60	82.76	78.58	23.29	57.82	10.59	110.02	69.72	56.15
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	68.99		50.00		73.37			57.17	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.97								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	28815	28816	28813	28814	28819	28820	28821	28817	28818
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.78	6.78	9.17	7.51	6.77	2.41	7.88	0.68	8.25
Q2, Second-term Queued	0.36	3.46	4.86	1.09	2.17	0.27	6.52	0.14	2.79
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.14	10.24	14.03	8.59	8.94	2.68	14.40	0.83	11.04
fB%, % Factor	1.77	1.56	1.53	1.59	1.58	1.79	1.53	1.92	1.55
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.55	16.02	21.46	13.66	14.15	4.81	22.00	1.59	17.17

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	28815	28816	28813	28814	28819	28820	28821	28817	28818
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
I1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	28815	28816	28813	28814	28819	28820	28821	28817	28818
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe									
Control Type				TWSC					
Method				HCM 2000					
dI, Average Delay				24.59					
Worst Case Delay				67.21					
Worst Case LOS				F					

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	237.00	52.00	138.00	288.00	81.00	175.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	263.33	57.78	153.33	320.00	90.00	194.44

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			263.33	57.78	153.33		90.00	194.44
Conflicting Volume (Veh)	320.00			448.89	306.67	0.00		626.67	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	320.00			448.89	306.67	0.00		626.67	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1251.34			518.55	610.47	1629.70		401.68	1087.94
Capacity	1251.34			320.88	553.03	1629.70		363.88	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	263.33	57.78	153.33	320.00	90.00	194.44
cmx, Capacity	1251.34			320.88	553.03	1629.70		363.88	1087.94
V / C	0.00			0.82	0.10	0.09		0.25	0.18
d, Delay	7.88			67.21	62.50	7.44		18.84	12.25
LOS	A			F	F	A		C	B
dA, Approach Delay	2.63			66.36		2.41		14.34	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	321.11	153.33	320.00	284.44
Flared Storage Size					
cmx, Capacity	1251.34	347.09			667.62
V / C	0.00	0.93			0.43
Q95, 95% Queue Length	0.00	9.47			2.13
d, Delay	2.63	66.36			14.34
LOS	A	F			B
dA, Approach Delay	2.63	66.36	2.41		14.34
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.03	
Average LOS		A	
V/C		0.52	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	300	44	15	37	71	78	519	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	79	12	4	10	19	21	137	3
Adjusted Volume	75	33	42	56	316	46	16	39	75	82	546	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	28824	28825	28822	28823	28828	28829	28826	28827
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	362	55	75	82	560
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	28824	28825	28822	28823	28828	28829	28826	28827
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.428	1.000	0.894	1.000	0.575	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.981	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	755	1698	1610	1530	1036	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	28824	28825	28822	28823	28828	28829	28826	28827
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	362.11	54.74	74.74	82.11	560
s, Saturation Flow Rate	1461	1530	755	1698	1610	1530	1036	1758
c, Capacity	244	255	440	990	268	255	604	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.37	0.2	0.29	0.14	0.55
d1, Uniform Delay	13.49	12.85	3.37	3.97	12.94	13.14	3.39	4.59
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.59	1.04	1.71	2.90	0.47	2.09
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	3.97	5.02	14.65	16.04	3.86	6.67
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.88		15.45		6.32	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.03							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	28824	28825	28822	28823	28828	28829	28826	28827
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.92	0.47	0.65	0.37	3.42
Q2, Second-term Queued	0.17	0.05	0.05	0.34	0.06	0.10	0.07	0.73
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.42	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.26	0.53	0.75	0.44	4.15
fB%, % Factor	1.90	1.96	1.97	1.82	1.95	1.93	1.96	1.72
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	4.11	1.04	1.45	0.86	7.13

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	28824	28825	28822	28823	28828	28829	28826	28827
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.21	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	28824	28825	28822	28823	28828	28829	28826	28827
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		560.00		107.37		362.11	
Volc, Adjusted Opposing F	0.57		5.60		1.13		3.62	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.27		0.00		0.00	
gu	6.00		18.73		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.09		1.42		1.74	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.75								
Worst Case Delay				22.99								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	30.00	231.00	2.00	13.00	68.00	49.00	9.00	432.00	12.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	30.93	238.14	2.06	13.40	70.10	50.52	9.28	445.36	12.37

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	30.93			13.40	70.10	50.52	9.28		
Conflicting Volume (Veh)	831.44	777.32	239.18	457.73			784.02	772.16	451.55	240.21		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	831.44	777.32	239.18	457.73			784.02	772.16	451.55	240.21		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	290.97	320.99	804.70	1077.30			303.61	332.52	612.12	1338.31		
Capacity	214.75	307.31	804.70	1077.30			277.37	318.35	612.12	1338.31		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	30.93	238.14	2.06	13.40	70.10	50.52	9.28	445.36	12.37
cmx, Capacity	214.75	307.31	804.70	1077.30			277.37	318.35	612.12	1338.31		
V / C	0.00	0.06	0.01	0.03			0.05	0.22	0.08	0.01		
d, Delay	22.61	17.56	10.32	8.44			22.99	21.32	15.90	7.71		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.08			0.96			19.44			0.15		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.07		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	271.13	134.02	467.01
Flared Storage Size				
cmx, Capacity	351.64	1077.30	381.77	1338.31
V / C	0.08	0.25	0.35	0.35
Q95, 95% Queue Length	0.25	1.00	1.55	1.58
d, Delay	16.08	8.44	19.44	7.71
LOS	C	A	C	A
dA, Approach Delay	16.08	0.96	19.44	0.15
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.83								
Worst Case Delay				29.55								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	23.00	428.00	9.00	12.00	0.00	0.00	10.00	572.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	25.27	470.33	9.89	13.19	0.00	0.00	10.99	628.57	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	25.27			13.19	0.00	0.00	10.99		
Conflicting Volume (Veh)	1176.37	1187.36	475.27	639.56			1181.32	1186.81	634.07	480.22		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1176.37	1187.36	475.27	639.56			1181.32	1186.81	634.07	480.22		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	169.66	189.94	593.58	925.64			168.34	190.08	475.47	1041.83		
Capacity	164.79	182.80	593.58	925.64			159.78	182.94	475.47	1041.83		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	25.27	470.33	9.89	13.19	0.00	0.00	10.99	628.57	10.99
cmx, Capacity	164.79	182.80	593.58	925.64			159.78	182.94	475.47	1041.83		
V / C	0.03	0.02	0.01	0.03			0.08	0.00	0.00	0.01		
d, Delay	27.68	25.53	11.90	9.00			29.55	26.70	14.59	8.49		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	20.57			0.45			29.55			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	25.27	480.22	13.19	10.99	639.56
Flared Storage Size						
cmx, Capacity	244.36			159.78		
V / C	0.05			0.08		
Q95, 95% Queue Length	0.17			0.27		
d, Delay	20.57			29.55		
LOS	C			D		
dA, Approach Delay	20.57	0.45		29.55	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.82	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	93.00	131.00	37.00	147.00	103.00	19.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	110.71	155.95	44.05	175.00	122.62	22.62
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	266.67	44.05	297.62	22.62
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	155.95	44.05	122.62	22.62
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.58	1.00	0.41	1.00
PHV, Proportion HV	2.42	0.00	13.60	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.31	-0.60	-0.02	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	266.67	44.05	297.62	22.62
hd initial	3.20	3.20	3.20	3.20
x initial	0.24	0.04	0.26	0.02
hd, iteration 1	3.85	3.76	4.16	3.81
Difference, iteration 1	0.65	0.56	0.96	0.61
hd, iteration 2	3.92	3.85	4.21	3.97
Difference, iteration 2	0.07	0.09	0.05	0.15
hd, iteration 3	3.93	3.86	4.22	3.98
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	3.93	3.86	4.22	3.98
x final, Degree of Utilization	0.29	0.05	0.35	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	266.67	44.05	297.62	22.62
hd, Departure Headway	3.93	3.86	4.22	3.98
x, Degree of Utilization	0.29	0.05	0.35	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	1.93	1.86	2.22	1.98
Capacity	915.89	931.47	852.17	904.89
Delay	8.53	7.06	9.47	7.08
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.53	7.06	9.47	7.08
Approach LOS	A	A	A	A
Intersection Delay	8.82			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.14	
Worst Case Delay	10.19	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	29.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	39.73	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		2.74	86.30
Conflicting Volume (Veh)			53.42		217.12	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		217.12	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		775.59	1025.79
Capacity			1565.04		742.92	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	39.73	2.74	86.30
cmx, Capacity			1565.04		742.92	1025.79
V / C			0.04		0.00	0.08
d, Delay			7.40		10.19	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.58		8.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	104.11	89.04
Flared Storage Size			
cmx, Capacity		1565.04	1013.91
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.29
d, Delay		7.40	8.89
LOS		A	A
dA, Approach Delay	0.00	4.58	8.89
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.26	
Worst Case Delay	18.22	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	480.00	12.00	1.00	384.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	533.33	13.33	1.11	426.67	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		13.33	1.11		
Conflicting Volume (Veh)	434.44		963.89	430.56		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	434.44		963.89	430.56		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1073.93		285.60	628.99		
Capacity	1073.93		285.60	628.99		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	533.33	13.33	1.11	426.67	7.78
cmx, Capacity	1073.93		285.60	628.99		
V / C	0.00		0.05	0.00		
d, Delay	8.35		18.22	11.34		
LOS	A		C	B		
dA, Approach Delay	0.00		17.69		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	533.33	14.44	434.44
Flared Storage Size			
cmx, Capacity	0.00	298.11	
V / C	0.00	0.05	
Q95, 95% Queue Length	0.00	0.15	
d, Delay	4.18	17.69	
LOS	A	C	
dA, Approach Delay	0.00	17.69	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.23	
Worst Case Delay	18.6	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	6.00	486.00	5.00	6.00	386.00	6.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	6.74	546.07	5.62	6.74	433.71	6.74

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	6.74		5.62	6.74		
Conflicting Volume (Veh)	440.45		996.63	437.08		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	440.45		996.63	437.08		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1130.23		273.09	623.70		
Capacity	1130.23		270.69	623.70		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	6.74	546.07	5.62	6.74	433.71	6.74
cmx, Capacity	1130.23		270.69	623.70		
V / C	0.01		0.02	0.01		
d, Delay	8.20		18.60	11.07		
LOS	A		C	B		
dA, Approach Delay	0.10		14.49		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.07				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	552.81	12.36	440.45
Flared Storage Size			
cmx, Capacity	1130.23	391.58	
V / C	0.49	0.03	
Q95, 95% Queue Length	2.77	0.10	
d, Delay	8.20	14.49	
LOS	A	B	
dA, Approach Delay	0.10	14.49	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.27	
Worst Case Delay	10.27	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	17.00	0.00	115.00	15.00	19.00	86.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	19.32	0.00	130.68	17.05	21.59	97.73

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	19.32	0.00			21.59	
Conflicting Volume (Veh)	280.11	139.20			147.73	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	280.11	139.20			147.73	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	714.10	863.25			1397.94	
Capacity	702.40	863.25			1397.94	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	19.32	0.00	130.68	17.05	21.59	97.73
cmx, Capacity	702.40	863.25			1397.94	
V / C	0.03	0.00			0.02	
d, Delay	10.27	9.32			7.62	
LOS	B	A			A	
dA, Approach Delay	10.27		0.00		1.38	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.12	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	19.32	147.73	119.32
Flared Storage Size			
cmx, Capacity	702.40		1397.94
V / C	0.03		0.09
Q95, 95% Queue Length	0.08		0.28
d, Delay	10.27		7.62
LOS	B		A
dA, Approach Delay	10.27	0.00	1.38
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.57	
Worst Case Delay	13.59	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	155.00	83.00	91.00	114.00	24.00	90.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	164.89	88.30	96.81	121.28	25.53	95.74

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			96.81		25.53	95.74
Conflicting Volume (Veh)			253.19		523.94	209.04
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			253.19		523.94	209.04
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1306.18		517.18	823.73
Capacity			1306.18		475.90	823.73

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	164.89	88.30	96.81	121.28	25.53	95.74
cmx, Capacity			1306.18		475.90	823.73
V / C			0.07		0.05	0.12
d, Delay			7.98		13.59	10.40
LOS			A		B	B
dA, Approach Delay	0.00		3.54		11.07	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.64			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	253.19	218.09	121.28
Flared Storage Size			
cmx, Capacity		1306.18	713.89
V / C		0.17	0.17
Q95, 95% Queue Length		0.60	0.61
d, Delay		7.98	11.07
LOS		A	B
dA, Approach Delay	0.00	3.54	11.07
Approach LOS			B

Scenario 7

Diverter at Linwood Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	71.15
Average LOS	E
V/C	0.97
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	266	72	97	340	0	89	268	62	123	496	90
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	69	19	25	89	0	23	70	16	32	129	23
Adjusted Volume	41	277	75	101	354	0	93	279	65	128	517	94

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	35261	35262	35259	35260	35265	35266	35263	35264
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	352	101	354	93	344	128	610
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.00	0.00	0.19	0.00	0.15

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	35261	35262	35259	35260	35265	35266	35263	35264
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	1.000	1.000	0.972	1.000	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1732	1676	1707

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	35261	35262	35259	35260	35265	35266	35263	35264
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	352.08	101.04	354.17	92.71	343.75	128.13	610.42
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1732	1676	1707
c, Capacity	46	471	91	504	117	551	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.11	0.7	0.79	0.62	1.07	1.18
d1, Uniform Delay	27.17	18.58	26.45	17.87	25.59	16.26	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.33	127.21	7.95	40.30	5.27	102.26	101.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.92	153.66	25.83	65.89	21.53	128.26	121.03
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.32		54.20		30.95		122.28	
Approach LOS	D		D		C		F	
dI, Intersection Delay	71.15							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	35261	35262	35259	35260	35265	35266	35263	35264
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	5.00	1.57	4.92	1.42	4.55	1.99	9.50
Q2, Second-term Queued	0.44	1.31	2.15	1.13	0.58	0.87	2.32	14.59
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.52
Q, Average Back of Queue	1.07	6.31	3.72	6.05	2.00	5.42	4.32	24.09
fB%, % Factor	1.90	1.64	1.74	1.65	1.84	1.67	1.71	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.36	6.47	9.98	3.67	9.04	7.39	36.23

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	35261	35262	35259	35260	35265	35266	35263	35264
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.06	0.20	0.08	0.36
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	35261	35262	35259	35260	35265	35266	35263	35264
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		15.98	
Average LOS		B	
V/C		0.77	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	7	1764	12	22	33	22	27	1623	10	24	26	82
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	474	3	6	9	6	7	436	3	6	7	22
Adjusted Volume	8	1897	13	24	35	24	29	1745	11	26	28	88

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	35272	35273	35275	35271	35267	35268	35270	35276
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	8	1897	13	83	29	1745	11	142
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.18
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.62

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	35272	35273	35275	35271	35267	35268	35270	35276
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.625	0.950	1.000	1.000	0.899
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.961	1.000	1.000	0.850	0.916
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1082	1710	3327	1530	1482

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	35272	35273	35275	35271	35267	35268	35270	35276
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	7.53	1896.77	12.9	82.8	29.03	1745.16	10.75	141.94
s, Saturation Flow Rate	1710	3327	1530	1082	1710	3327	1530	1482
c, Capacity	29	2440	1122	117	71	2523	1160	161
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.26	0.78	0.01	0.71	0.41	0.69	0.01	0.88
d1, Uniform Delay	58.27	9.92	4.30	51.66	56.06	7.37	3.53	52.76
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	21.30	2.51	0.02	30.07	16.37	1.58	0.01	45.62
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	79.57	12.44	4.32	81.73	72.42	8.95	3.54	98.38
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.64			81.73	9.95			98.38
Approach LOS	B			F	A			F
dI, Intersection Delay	15.98							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	35272	35273	35275	35271	35267	35268	35270	35276
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.25	20.60	0.12	2.66	0.94	15.53	0.09	4.67
Q2, Second-term Queued	0.04	5.08	0.02	0.65	0.15	3.57	0.01	1.71
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.31	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.29	25.67	0.13	3.32	1.09	19.09	0.10	6.37
fB%, % Factor	1.97	1.50	1.99	1.76	1.90	1.51	1.99	1.64
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.57	38.59	0.26	5.83	2.07	28.85	0.20	10.45

Signal Timing Information								
Approach	N			E	S			W
Lane Group	35272	35273	35275	35271	35267	35268	35270	35276
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.08	0.02	0.52	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	35272	35273	35275	35271	35267	35268	35270	35276
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				25.81
PLT, Proportion LT in Lane				0.29				0.18
PLTo, Proportion LT in Op				0.18				0.29
LT Volume per Cycle				0.79				0.86
Vo, Opposing Flow				141.94				82.80
Volc, Adjusted Opposing F				4.73				2.76
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.30				5.49
gu				2.70				7.51
PL				0.29				0.18
de facto caused by PL >=								
EL1				1.46				1.37
EL2				5.49				2.72
gdif				8.11				3.54
fm				0.63				0.90
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.63	0.95	1.00	1.00	0.90

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.06								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	92	1665	108	104	225	149	192	1476	88	21	172	29
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	24	443	29	28	60	40	51	393	23	6	46	8
Adjusted Volume	98	1771	115	111	239	159	204	1570	94	22	183	31

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	98	1771	115	111	239	37	122	204	1570	94	22	183	31
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.612	1.000	1.000	1.000	0.950	1.000	1.000	0.523	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1079	3427	1515	1515	1676	3327	1500	941	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	97.87	1771.28	114.89	110.64	239.36	36.99	121.52	204.26	1570.21	93.62	22.34	182.98	30.85
s, Saturation Flow Rate	1676	3360	1515	1079	3427	1515	1515	1676	3327	1500	941	3427	1530
c, Capacity	335	1988	896	198	628	303	278	182	1664	750	172	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.29	0.89	0.13	0.56	0.38	0.12	0.44	1.12	0.94	0.12	0.13	0.29	0.11
d1, Uniform Delay	40.78	21.16	10.83	44.59	43.02	9.18	33.36	53.50	28.40	16.00	40.99	42.27	40.84
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.20	6.53	0.30	10.94	1.75	0.82	4.95	104.22	12.24	0.34	1.55	1.17	0.79
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.98	27.69	11.12	55.53	44.77	10.01	38.30	157.72	40.65	16.34	42.54	43.45	41.63
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.48			43.04				52.23			43.12		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.06												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.77	26.78	1.69	3.36	3.68	1.01	3.60	6.81	26.03	1.66	0.62	2.76	0.86
Q2, Second-term Queued	0.27	7.65	0.19	0.54	0.39	0.08	0.43	4.99	8.78	0.16	0.06	0.26	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	3.04	34.43	1.88	3.90	4.07	1.09	4.03	11.80	34.81	1.83	0.68	3.03	0.93
fB%, % Factor	1.77	1.50	1.84	1.73	1.72	1.90	1.72	1.55	1.50	1.85	1.94	1.77	1.92
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.38	51.67	3.47	6.74	7.00	2.08	6.95	18.26	52.23	3.37	1.32	5.36	1.78

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.10	0.07	0.02	0.08	0.12	0.47	0.06	0.02	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	35286	35287	35289	35281	35282	35284	35285	35277	35278	35280	35290	35291	35293
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				110.64							22.34		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.69							0.74		
Vo, Opposing Flow				182.98							239.36		
Volc, Adjusted Opposing F				3.36							4.39		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.81							3.74		
gu				20.19							18.26		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.50							1.59		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.61							0.52		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.61	1.00	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.9	
Average LOS		D	
V/C		0.97	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	277	1640	21	81	218	158	48	1569	49	7	244	55
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	72	427	5	21	57	41	13	409	13	2	64	14
Adjusted Volume	289	1708	22	84	227	165	50	1634	51	7	254	57

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	35310	35311	35313	35308	35304	35305	35307	35314
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	289	1708	22	476	50	1634	51	319
PLT, Proportion Left Turns	1.00	0.00	0.00	0.18	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.18

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	35310	35311	35313	35308	35304	35305	35307	35314
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.753	0.950	1.000	1.000	0.944
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.948	1.000	1.000	0.850	0.973
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2330	1613	3360	1471	3028

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	35310	35311	35313	35308	35304	35305	35307	35314
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	288.54	1708.33	21.88	476.04	50	1634.38	51.04	318.75
s, Saturation Flow Rate	1710	3327	1530	2330	1613	3360	1471	3028
c, Capacity	323	1869	859	534	149	1562	684	694
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.89	0.91	0.03	0.89	0.34	1.05	0.07	0.46
d1, Uniform Delay	47.45	23.69	11.70	44.81	50.99	32.10	17.79	39.85
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.84	8.42	0.05	19.74	5.96	35.86	0.21	2.18
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.30	32.11	11.75	64.55	56.95	67.96	18.00	42.03
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.20			64.55	66.17			42.03
Approach LOS	D			E	E			D
dI, Intersection Delay	51.9							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	35310	35311	35313	35308	35304	35305	35307	35314
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.38	26.94	0.32	8.07	1.56	28.61	0.94	4.81
Q2, Second-term Queued	3.07	8.24	0.03	2.74	0.18	14.03	0.09	0.57
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.46	35.18	0.36	10.82	1.74	42.64	1.03	5.38
fB%, % Factor	1.54	1.50	1.97	1.56	1.85	1.50	1.91	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.20	52.78	0.70	16.84	3.23	63.97	1.96	8.99

Signal Timing Information								
Approach	N			E	S			W
Lane Group	35310	35311	35313	35308	35304	35305	35307	35314
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.20	0.03	0.49	0.03	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	35310	35311	35313	35308	35304	35305	35307	35314
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				84.38				7.29
PLT, Proportion LT in Lane				0.18				0.02
PLTo, Proportion LT in Op				0.02				0.18
LT Volume per Cycle				2.81				0.24
Vo, Opposing Flow				318.75				476.04
Volc, Adjusted Opposing F				5.58				8.33
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.32				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				5.49				10.92
gu				22.01				11.53
PL				0.47				0.05
de facto caused by PL >=								
EL1				1.79				2.13
EL2				19.36				0.00
gdif				0.00				0.00
fm				0.60				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.75	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.56
Worst Case Delay	12.14
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	420.00	47.00	394.00	159.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	461.54	51.65	432.97	174.73

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		51.65		
Conflicting Volume (Veh)		520.33		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		520.33		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		555.87		
Capacity		555.87		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	461.54	51.65	432.97	174.73
cmx, Capacity		555.87		
V / C		0.09		
d, Delay		12.14		
LOS		B		
dA, Approach Delay	0.00	12.14	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	461.54	51.65	607.69
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.14	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.24	
Average LOS	B	
V/C	0.44	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	336	85	166	450
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	88	22	44	118
Adjusted Volume	89	118	354	89	175	474

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	35331	35330	35332	35334
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	443	175	474
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	35331	35330	35332	35334
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.387
fRT, Right Turn Adjustment	0.923	0.973	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1700	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	35331	35330	35332	35334	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	443.16	132	43	473.68
			175		
s, Saturation Flow Rate	1627	1700	1693	690	1748
			830		
c, Capacity	560	756	132	330	971
			461		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.59	1.00	0.13	0.49
			0.38		
d1, Uniform Delay	22.16	18.79	10.86		12.19
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay	1.87	3.32	2.36		1.75
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.11	13.22		13.95
LOS	C	C	B		B
dA, Approach Delay	24.04	22.11	13.75		
Approach LOS	C	C	B		
dI, Intersection Delay	18.24				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	35331	35330	35332	35334
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.33	2.46	7.22
Q2, Second-term Queued	0.44	1.29	0.40	1.05
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.61	2.86	8.27
fB%, % Factor	1.71	1.57	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.12	5.10	13.19

Signal Timing Information					
Approach	N	E	W		
Lane Group	35331	35330	35332		35334
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.27
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	35331	35330	35332	35334	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				443.16	
Volc, Adjusted Opposing Flow				11.08	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.83	
gu				31.17	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	2.87	
Worst Case Delay	13.05	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	385.00	109.00	137.00	316.00	32.00	117.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	423.08	119.78	150.55	347.25	35.16	128.57

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			150.55			128.57
Conflicting Volume (Veh)			364.84			482.97
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			364.84			482.97
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			680.21			575.52
Capacity			680.21			575.52

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	423.08	119.78	150.55	347.25	35.16	128.57
cmx, Capacity			680.21			575.52
V / C			0.22			0.22
d, Delay			11.79			13.05
LOS			B			B
dA, Approach Delay	0.00		11.79	0.00		13.05
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	542.86	150.55	382.42	128.57
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.79	0.00	13.05
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.83								
Worst Case Delay				13.41								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	117.00	22.00	85.00	20.00	15.00	8.00	37.00	49.00	0.00	24.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	127.17	23.91	92.39	21.74	16.30	8.70	40.22	53.26	0.00	26.09	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	127.17	23.91	92.39			8.70	40.22	53.26	0.00		
Conflicting Volume (Veh)	295.65	257.07	29.89	42.39			324.46	257.07	34.24	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	295.65	257.07	29.89	42.39			324.46	257.07	34.24	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	660.58	647.01	1036.06	1579.52			624.72	648.73	1044.66	1585.26		
Capacity	568.37	608.30	1036.06	1579.52			489.53	609.91	1044.66	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	127.17	23.91	92.39	21.74	16.30	8.70	40.22	53.26	0.00	26.09	16.30
cmx, Capacity	568.37	608.30	1036.06	1579.52			489.53	609.91	1044.66	1585.26		
V / C	0.04	0.21	0.02	0.06			0.02	0.07	0.05	0.00		
d, Delay	13.41	12.99	10.55	7.42			13.09	11.64	9.18	7.27		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.71			5.26			10.48			0.00		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.44						0.00		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	172.83	130.43	102.17	42.39
Flared Storage Size				
cmx, Capacity	639.16	1579.52	758.60	0.00
V / C	0.27	0.08	0.13	0.00
Q95, 95% Queue Length	1.09	0.27	0.46	0.00
d, Delay	12.71	7.42	10.48	2.42
LOS	B	A	B	A
dA, Approach Delay	12.71	5.26	10.48	0.00
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8								
Worst Case Delay				34.04								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	125.00	140.00	4.00	83.00	31.00	95.00	29.00	131.00	149.00	4.00	7.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	147.06	164.71	4.71	97.65	36.47	111.76	34.12	154.12	175.29	4.71	8.24	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	147.06			97.65	36.47	111.76	34.12			4.71	8.24	54.12
Conflicting Volume (Veh)	329.41			800.00	773.53	241.76	169.41			845.29	858.82	167.06
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	329.41			800.00	773.53	241.76	169.41			845.29	858.82	167.06
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1224.50			304.31	331.92	797.08	1420.28			284.79	296.25	871.97
Capacity	1224.50			247.24	283.35	797.08	1420.28			196.44	252.91	871.97

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	147.06	164.71	4.71	97.65	36.47	111.76	34.12	154.12	175.29	4.71	8.24	54.12
cmx, Capacity	1224.50			247.24	283.35	797.08	1420.28			196.44	252.91	871.97
V / C	0.12			0.39	0.13	0.14	0.02			0.02	0.03	0.06
d, Delay	8.34			34.04	32.18	10.25	7.60			24.18	20.09	9.98
LOS	A			D	D	B	A			C	C	A
dA, Approach Delay	3.88			22.95			0.71			12.22		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.23					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	147.06	169.41	134.12	111.76	363.53	67.06
Flared Storage Size						
cmx, Capacity			256.12		1420.28	565.50
V / C			0.52		0.26	0.12
Q95, 95% Queue Length			2.79		1.02	0.40
d, Delay			33.53		7.60	12.22
LOS			D		A	B
dA, Approach Delay	3.88		22.95		0.71	12.22
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.87	
Worst Case Delay	15.13	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	21.00	16.00	307.00	52.00	18.00	315.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	22.34	17.02	326.60	55.32	19.15	335.11

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	22.34	17.02			19.15	
Conflicting Volume (Veh)	727.66	354.26			381.91	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	727.66	354.26			381.91	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	389.13	694.11			1187.61	
Capacity	381.32	694.11			1187.61	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	22.34	17.02	326.60	55.32	19.15	335.11
cmx, Capacity	381.32	694.11			1187.61	
V / C	0.06	0.02			0.02	
d, Delay	15.13	10.87			8.08	
LOS	C	B			A	
dA, Approach Delay	13.29		0.00		0.44	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.16	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	39.36	381.91	354.26
Flared Storage Size			
cmx, Capacity	473.61		1187.61
V / C	0.08		0.30
Q95, 95% Queue Length	0.27		1.26
d, Delay	13.29		8.08
LOS	B		A
dA, Approach Delay	13.29	0.00	0.44
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.65	
Worst Case Delay	24.82	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	33.00	445.00	5.00	25.00	693.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	33.67	454.08	5.10	25.51	707.14	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	33.67		5.10	25.51		
Conflicting Volume (Veh)	708.16		1229.08	707.65		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	708.16		1229.08	707.65		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	885.96		198.26	431.53		
Capacity	885.96		190.72	431.53		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	33.67	454.08	5.10	25.51	707.14	1.02
cmx, Capacity	885.96		190.72	431.53		
V / C	0.04		0.03	0.06		
d, Delay	9.22		24.82	14.29		
LOS	A		C	B		
dA, Approach Delay	0.64		16.04		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	33.67	454.08	30.61	708.16
Flared Storage Size				
cmx, Capacity			356.51	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			16.04	
LOS			C	
dA, Approach Delay	0.64		16.04	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.78								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	30.00	40.00	8.00	5.00	56.00	9.00	7.00	47.00	3.00	11.00	67.00	18.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	31.91	42.55	8.51	5.32	59.57	9.57	7.45	50.00	3.19	11.70	71.28	19.15
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	74.47	60.64	102.13
Left Turn Flow Rate	31.91	5.32	7.45	11.70
Right Turn Flow Rate	8.51	9.57	3.19	19.15
PLT, Proportion LT	0.38	0.07	0.12	0.11
PRT, Proportion RT	0.10	0.13	0.05	0.19
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.02	-0.06	-0.01	-0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	74.47	60.64	102.13
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.07	0.05	0.09
hd, iteration 1	4.26	4.16	4.26	4.11
Difference, iteration 1	1.06	0.96	1.06	0.91
hd, iteration 2	4.37	4.27	4.37	4.21
Difference, iteration 2	0.10	0.11	0.11	0.10
hd, iteration 3	4.38	4.28	4.38	4.22
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.38	4.28	4.38	4.22
x final, Degree of Utilization	0.10	0.09	0.07	0.12

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	74.47	60.64	102.13
hd, Departure Headway	4.38	4.28	4.38	4.22
x, Degree of Utilization	0.10	0.09	0.07	0.12
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.38	2.28	2.38	2.22
Capacity	822.01	841.33	820.99	852.38
Delay	7.87	7.69	7.73	7.80
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.87	7.69	7.73	7.80
Approach LOS	A	A	A	A
Intersection Delay	7.78			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				16.97								
Average LOS				C								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	59.00	22.00	52.00	189.00	1.00	62.00	127.00	167.00	14.00	224.00	153.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	64.84	24.18	57.14	207.69	1.10	68.13	139.56	183.52	15.38	246.15	168.13
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	89.01	265.93	68.13	323.08	429.67
Left Turn Flow Rate	0.00	57.14	68.13	0.00	15.38
Right Turn Flow Rate	24.18	1.10	0.00	183.52	168.13
PLT, Proportion LT	0.00	0.21	1.00	0.00	0.04
PRT, Proportion RT	0.27	0.00	0.00	0.57	0.39
PHV, Proportion HV	2.81	2.77	1.00	1.57	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.12	0.09	0.52	-0.37	-0.21

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	89.01	265.93	68.13	323.08	429.67
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.08	0.24	0.06	0.29	0.38
hd, iteration 1	5.42	5.14	6.25	5.35	4.69
Difference, iteration 1	2.22	1.94	3.05	2.15	1.49
hd, iteration 2	6.36	5.89	6.88	5.98	5.37
Difference, iteration 2	0.94	0.75	0.64	0.63	0.69
hd, iteration 3	6.74	6.17	7.16	6.25	5.60
Difference, iteration 3	0.38	0.27	0.27	0.27	0.23
hd, iteration 4	6.88	6.27	7.25	6.35	5.69
Difference, iteration 4	0.14	0.11	0.10	0.10	0.09
hd, iteration 5	6.94	6.31	7.29	6.39	5.73
Difference, iteration 5	0.06	0.04	0.04	0.04	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.94	6.31	7.29	6.39	5.73
x final, Degree of Utilizatio	0.17	0.47	0.14	0.57	0.68

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	89.01	265.93	68.13	323.08	429.67
hd, Departure Headway	6.94	6.31	7.29	6.39	5.73
x, Degree of Utilization	0.17	0.47	0.14	0.57	0.68
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.94	4.31	4.99	4.09	3.73
Capacity	518.59	569.78	492.89	563.49	627.72
Delay	11.37	14.71	11.16	17.31	20.19
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.37	14.71	16.23		20.19
Approach LOS	B	B	C		C
Intersection Delay	16.97				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.12	
Worst Case Delay	27.94	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	144.00	133.00	136.00	86.00	290.00	201.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	146.94	135.71	138.78	87.76	295.92	205.10

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	146.94		138.78	87.76		
Conflicting Volume (Veh)	501.02		828.06	398.47		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	501.02		828.06	398.47		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1073.64		343.60	653.43		
Capacity	1073.64		292.50	653.43		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	146.94	135.71	138.78	87.76	295.92	205.10
cmx, Capacity	1073.64		292.50	653.43		
V / C	0.14		0.47	0.13		
d, Delay	8.88		27.94	11.36		
LOS	A		D	B		
dA, Approach Delay	4.62		21.52		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.32				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	282.65	138.78	87.76	501.02
Flared Storage Size				
cmx, Capacity	1073.64			
V / C	0.26			
Q95, 95% Queue Length	1.06			
d, Delay	8.88			
LOS	A			
dA, Approach Delay	4.62	21.52		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.12	
Worst Case Delay	14.97	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	31.00	22.00	272.00	32.00	8.00	324.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	34.83	24.72	305.62	35.96	8.99	364.04

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	34.83	24.72			8.99	
Conflicting Volume (Veh)	705.62	323.60			341.57	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	705.62	323.60			341.57	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	405.44	722.06			1228.77	
Capacity	401.66	722.06			1228.77	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	34.83	24.72	305.62	35.96	8.99	364.04
cmx, Capacity	401.66	722.06			1228.77	
V / C	0.09	0.03			0.01	
d, Delay	14.97	10.99			7.95	
LOS	B	B			A	
dA, Approach Delay	13.32		0.00		0.19	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	59.55	341.57	373.03
Flared Storage Size			
cmx, Capacity	492.35		1228.77
V / C	0.12		0.30
Q95, 95% Queue Length	0.41		1.29
d, Delay	13.32		7.95
LOS	B		A
dA, Approach Delay	13.32	0.00	0.19
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.7	
Average LOS		A	
V/C		0.57	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	56	194	144	11	275	19	39	107	19	113	402	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	15	52	39	3	74	5	10	29	5	30	108	1
Adjusted Volume	60	209	155	12	296	20	42	115	20	122	432	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	35361	35362	35359	35360	35365	35366	35363	35364
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	269	155	12	316	157	20	122	438
PLT, Proportion Left Turns	0.22	0.00	1.00	0.00	0.27	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	35361	35362	35359	35360	35365	35366	35363	35364
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.912	1.000	0.477	1.000	0.874	1.000	0.600	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1610	1485	858	1748	1557	1530	1000	1761

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	35361	35362	35359	35360	35365	35366	35363	35364
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	268.82	154.84	11.83	316.13	156.99	20.43	121.51	437.63
s, Saturation Flow Rate	1610	1485	858	1748	1557	1530	1000	1761
c, Capacity	483	446	372	757	467	459	433	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.56	0.35	0.03	0.42	0.34	0.04	0.28	0.57
d1, Uniform Delay	8.82	8.21	4.88	5.88	8.17	7.45	5.48	6.41
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.57	2.14	0.16	1.69	1.94	0.18	1.61	3.12
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	13.39	10.34	5.04	7.57	10.11	7.63	7.09	9.53
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	12.28		7.48		9.83		9.00	
Approach LOS	B		A		A		A	
dI, Intersection Delay	9.7							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	35361	35362	35359	35360	35365	35366	35363	35364
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.88	1.01	0.06	1.82	1.02	0.12	0.65	2.75
Q2, Second-term Queued	0.39	0.16	0.01	0.31	0.16	0.01	0.11	0.58
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.31	0.31	0.29	0.44
Q, Average Back of Queue	2.28	1.17	0.07	2.13	1.18	0.14	0.77	3.33
fB%, % Factor	1.82	1.90	1.99	1.83	1.90	1.99	1.93	1.76
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.14	2.21	0.13	3.90	2.23	0.27	1.48	5.85

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	35361	35362	35359	35360	35365	35366	35363	35364
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.17	0.10	0.01	0.18	0.10	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	35361	35362	35359	35360	35365	35366	35363	35364
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	60.22		11.83		41.94		121.51	
PLT, Proportion LT in Lane	0.22		1.00		0.27		1.00	
PLTo, Proportion LT in Op	0.24		0.00		0.14		0.00	
LT Volume per Cycle	0.50		0.10		0.35		1.01	
Vo, Opposing Flow	156.99		437.63		268.82		316.13	
Volc, Adjusted Opposing F	1.37		3.65		2.35		2.63	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.15		0.00		1.77		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.46		0.00		0.00	
gu	7.85		11.54		7.23		13.00	
PL	0.22		1.00		0.27		1.00	
de facto caused by PL >=								
EL1	1.50		1.86		1.70		1.67	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.91		0.48		0.87		0.60	
fLT, Left Turn Adjustment	0.91	1.00	0.48	1.00	0.87	1.00	0.60	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	24.07
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	159.00	196.00	32.00	11.00	13.00	0.00	308.00	27.00	343.00	44.00	38.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	167.37	206.32	33.68	11.58	13.68	0.00	324.21	28.42	361.05	46.32	40.00
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	181.05	206.32	45.26	13.68	352.63	407.37	40.00
Left Turn Flow Rate	13.68	0.00	33.68	0.00	0.00	361.05	0.00
Right Turn Flow Rate	0.00	206.32	0.00	13.68	28.42	0.00	40.00
PLT, Proportion LT	0.08	0.00	0.74	0.00	0.00	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.08	0.00	1.00
PHV, Proportion HV	0.00	3.00	0.77	0.00	0.92	1.77	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.04	-0.65	0.39	-0.70	-0.03	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	181.05	206.32	45.26	13.68	352.63	407.37	40.00
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.16	0.18	0.04	0.01	0.31	0.36	0.04
hd, iteration 1	5.61	4.92	6.42	5.32	5.58	6.18	5.00
Difference, iteration 1	2.41	1.72	3.22	2.12	2.38	2.98	1.80
hd, iteration 2	6.66	5.96	7.66	6.55	6.52	6.95	5.76
Difference, iteration 2	1.05	1.04	1.24	1.22	0.94	0.76	0.75
hd, iteration 3	7.00	6.30	8.15	7.03	6.82	7.26	6.07
Difference, iteration 3	0.34	0.34	0.49	0.49	0.30	0.31	0.31
hd, iteration 4	7.13	6.43	8.32	7.20	6.94	7.36	6.17
Difference, iteration 4	0.13	0.13	0.17	0.17	0.12	0.10	0.10
hd, iteration 5	7.18	6.48	8.38	7.26	6.98	7.40	6.21
Difference, iteration 5	0.05	0.05	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.18	6.48	8.38	7.26	6.98	7.40	6.21
x final, Degree of Utilization	0.36	0.37	0.11	0.03	0.68	0.84	0.07

Capacity and Level of Service

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	181.05	206.32	45.26	13.68	352.63	407.37	40.00
hd, Departure Headway	7.18	6.48	8.38	7.26	6.98	7.40	6.21
x, Degree of Utilization	0.36	0.37	0.11	0.03	0.68	0.84	0.07
m, Move Up Time	2.30	2.30	2.30	2.30	2.00	2.30	2.30
ts, Service Time	4.88	4.18	6.08	4.96	4.98	5.10	3.91
Capacity	501.43	555.08	429.16	495.25	515.86	486.14	579.65
Delay	13.88	12.96	12.07	10.17	23.72	37.77	9.36
LOS	B	B	B	B	C	E	A
Q95, 95% Queue Length							
Approach Delay	13.39		11.63		23.72	35.23	
Approach LOS	B		B		C	E	
Intersection Delay	24.07						
Intersection LOS	C						

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
			Control Type		Signalized							
			Method		HCM 2000							
			Average Delay		63.19							
			Average LOS		E							
			V/C		0.98							
			Loss Time		18							

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	145	258	21	358	319	68	36	236	416	35	289	28
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	37	66	5	92	82	18	9	61	107	9	74	7
Adjusted Volume	149	266	22	369	329	70	37	243	429	36	298	29

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	35369	35370	35367	35368	35373	35374	35375	35371	35372
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	149	288	369	399	280	114	315	36	327
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.18	0.00	1.00	1.00	0.00	0.09

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	35369	35370	35367	35368	35373	35374	35375	35371	35372
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustmen	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.987
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1735	1753	1515	1515	1710	1776

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	35369	35370	35367	35368	35373	35374	35375	35371	35372
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	149.48	287.63	369.07	398.97	280.41	114.36	314.5	36.08	326.8
s, Saturation Flow Rate	1693	1695	1676	1735	1753	1515	1515	1710	1776
c, Capacity	282	282	373	713	331	337	286	57	395
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.53	1.02	0.99	0.56	0.85	0.34	1.1	0.63	0.83
d1, Uniform Delay	34.28	37.50	34.91	20.27	35.24	7.85	26.77	42.96	33.36
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.96	58.28	44.36	3.15	22.62	2.73	82.38	43.18	17.84
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	41.23	95.78	79.26	23.42	57.87	10.58	109.14	86.14	51.20
LOS	D	F	E	C	E	B	F	F	D
dA, Approach Delay	77.13		50.25		72.98			54.67	
Approach LOS	E		D		E			D	
dI, Intersection Delay	63.19								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	35369	35370	35367	35368	35373	35374	35375	35371	35372
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.42	7.19	9.20	7.63	6.77	2.41	7.86	0.89	7.79
Q2, Second-term Queued	0.51	4.45	4.93	1.11	2.17	0.27	6.45	0.24	2.26
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.93	11.64	14.13	8.74	8.94	2.68	14.31	1.13	10.05
fB%, % Factor	1.73	1.55	1.53	1.59	1.58	1.79	1.53	1.90	1.57
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.79	18.03	21.61	13.87	14.16	4.80	21.87	2.15	15.75

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	35369	35370	35367	35368	35373	35374	35375	35371	35372
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.09	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.18
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	35369	35370	35367	35368	35373	35374	35375	35371	35372
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Re									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe					
		Control Type		TWSC	
		Method		HCM 2000	
		dI, Average Delay		21.39	
		Worst Case Delay		61.56	
		Worst Case LOS		F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	226.00	36.00	142.00	311.00	81.00	179.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	251.11	40.00	157.78	345.56	90.00	198.89

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			251.11	40.00	157.78		90.00	198.89
Conflicting Volume (Veh)	345.56			460.00	315.56	0.00		661.11	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	345.56			460.00	315.56	0.00		661.11	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1224.65			509.83	603.55	1629.70		383.86	1087.94
Capacity	1224.65			309.57	545.12	1629.70		346.69	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjusted	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjusted	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	251.11	40.00	157.78	345.56	90.00	198.89
cmx, Capacity	1224.65			309.57	545.12	1629.70		346.69	1087.94
V / C	0.00			0.81	0.07	0.10		0.26	0.18
d, Delay	7.94			61.56	56.54	7.45		19.68	12.61
LOS	A			F	F	A		C	B
dA, Approach Delay	2.65			60.87		2.33		14.81	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	291.11	157.78	345.56	288.89
Flared Storage Size					
cmx, Capacity	1224.65	329.11			652.99
V / C	0.00	0.88			0.44
Q95, 95% Queue Length	0.00	8.34			2.27
d, Delay	2.65	60.87			14.81
LOS	A	F			B
dA, Approach Delay	2.65	60.87	2.33		14.81
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.29	
Average LOS		A	
V/C		0.56	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	334	42	12	37	74	80	570	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	88	11	3	10	19	21	150	3
Adjusted Volume	75	33	42	56	352	44	13	39	78	84	600	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	35378	35379	35376	35377	35382	35383	35380	35381
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	396	52	78	84	614
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.24	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.11	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	35378	35379	35376	35377	35382	35383	35380	35381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.814	1.000	0.385	1.000	0.911	1.000	0.558	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.983	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1465	1530	680	1702	1640	1530	1004	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	35378	35379	35376	35377	35382	35383	35380	35381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	395.79	51.58	77.89	84.21	613.68
s, Saturation Flow Rate	1465	1530	680	1702	1640	1530	1004	1759
c, Capacity	244	255	397	993	273	255	586	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.14	0.4	0.19	0.31	0.14	0.6
d1, Uniform Delay	13.49	12.85	3.40	4.07	12.91	13.17	3.41	4.80
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.65	1.39	0.74	1.20	1.52	3.07	0.52	2.57
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.14	14.24	4.15	5.27	14.43	16.24	3.93	7.37
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.76		5.13		15.52		6.96	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.29							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	35378	35379	35376	35377	35382	35383	35380	35381
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.15	0.44	0.68	0.38	3.93
Q2, Second-term Queued	0.17	0.05	0.05	0.39	0.06	0.10	0.07	0.90
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.41	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.54	0.50	0.79	0.45	4.82
fB%, % Factor	1.90	1.96	1.97	1.80	1.95	1.93	1.96	1.69
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	4.58	0.98	1.51	0.89	8.15

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	35378	35379	35376	35377	35382	35383	35380	35381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.08	0.23	0.03	0.05	0.08	0.35
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	35378	35379	35376	35377	35382	35383	35380	35381
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		12.63		84.21	
PLT, Proportion LT in Lane	0.70		1.00		0.24		1.00	
PLTo, Proportion LT in Op	0.10		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.13		0.84	
Vo, Opposing Flow	51.58		613.68		107.37		395.79	
Volc, Adjusted Opposing F	0.54		6.14		1.13		3.96	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.25		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.26		0.00		0.00	
gu	6.00		17.74		5.75		21.00	
PL	0.70		1.00		0.24		1.00	
de facto caused by PL >=								
EL1	1.33		2.19		1.42		1.79	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.39		0.91		0.56	
fLT, Left Turn Adjustment	0.81	1.00	0.39	1.00	0.91	1.00	0.56	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.77								
Worst Case Delay				23.62								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	20.00	6.00	29.00	258.00	2.00	14.00	66.00	52.00	11.00	413.00	24.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	20.62	6.19	29.90	265.98	2.06	14.43	68.04	53.61	11.34	425.77	24.74

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	20.62	6.19	29.90			14.43	68.04	53.61	11.34		
Conflicting Volume (Veh)	848.45	800.00	267.01	450.52			801.03	788.66	438.14	268.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	848.45	800.00	267.01	450.52			801.03	788.66	438.14	268.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	283.39	311.34	776.50	1084.00			295.65	325.31	622.84	1307.34		
Capacity	208.37	297.59	776.50	1084.00			268.50	310.94	622.84	1307.34		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	20.62	6.19	29.90	265.98	2.06	14.43	68.04	53.61	11.34	425.77	24.74
cmx, Capacity	208.37	297.59	776.50	1084.00			268.50	310.94	622.84	1307.34		
V / C	0.00	0.07	0.01	0.03			0.05	0.22	0.09	0.01		
d, Delay	23.23	18.05	10.59	8.42			23.62	21.79	15.99	7.78		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.58			0.84			19.70			0.19		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	27.84	297.94	136.08	461.86
Flared Storage Size				
cmx, Capacity	338.63	1084.00	379.43	1307.34
V / C	0.08	0.27	0.36	0.35
Q95, 95% Queue Length	0.27	1.12	1.59	1.61
d, Delay	16.58	8.42	19.70	7.78
LOS	C	A	C	A
dA, Approach Delay	16.58	0.84	19.70	0.19
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.86								
Worst Case Delay				30.45								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	25.00	429.00	9.00	8.00	0.00	10.00	10.00	602.00	13.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	27.47	471.43	9.89	8.79	0.00	10.99	10.99	661.54	14.29

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	27.47			8.79	0.00	10.99	10.99		
Conflicting Volume (Veh)	1220.33	1229.12	476.37	675.82			1221.43	1226.92	668.68	481.32		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1220.33	1229.12	476.37	675.82			1221.43	1226.92	668.68	481.32		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	158.29	179.37	592.74	897.09			158.01	179.91	454.29	1040.84		
Capacity	149.64	172.04	592.74	897.09			149.46	172.56	454.29	1040.84		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	27.47	471.43	9.89	8.79	0.00	10.99	10.99	661.54	14.29
cmx, Capacity	149.64	172.04	592.74	897.09			149.46	172.56	454.29	1040.84		
V / C	0.03	0.02	0.01	0.03			0.06	0.00	0.02	0.01		
d, Delay	30.02	26.89	12.04	9.14			30.45	27.23	14.29	8.50		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	21.75			0.49			21.47			0.14		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	27.47	481.32	19.78	10.99	675.82
Flared Storage Size						
cmx, Capacity	228.12			238.29		
V / C	0.06			0.08		
Q95, 95% Queue Length	0.18			0.27		
d, Delay	21.75			21.47		
LOS	C			C		
dA, Approach Delay	21.75	0.49		21.47	0.14	
Approach LOS	C			C		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	13.05		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	31.00	77.00	137.00	3.00	66.00	36.00	7.00	20.00	1.00	251.00	86.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	36.90	91.67	163.10	3.57	78.57	42.86	8.33	23.81	1.19	298.81	102.38	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	125.00	33.33	420.24
Left Turn Flow Rate	36.90	3.57	8.33	298.81
Right Turn Flow Rate	163.10	42.86	1.19	19.05
PLT, Proportion LT	0.13	0.03	0.25	0.71
PRT, Proportion RT	0.56	0.34	0.04	0.05
PHV, Proportion HV	2.06	1.26	1.18	0.71
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.28	-0.18	0.05	0.13

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	125.00	33.33	420.24
hd initial	3.20	3.20	3.20	3.20
x initial	0.26	0.11	0.03	0.37
hd, iteration 1	4.57	4.63	5.14	4.69
Difference, iteration 1	1.37	1.43	1.94	1.49
hd, iteration 2	4.99	5.08	5.72	4.99
Difference, iteration 2	0.43	0.45	0.58	0.30
hd, iteration 3	5.09	5.21	5.87	5.09
Difference, iteration 3	0.10	0.12	0.15	0.10
hd, iteration 4	5.12	5.24	5.91	5.11
Difference, iteration 4	0.03	0.03	0.04	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.12	5.24	5.91	5.11
x final, Degree of Utilization	0.41	0.18	0.05	0.60

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	125.00	33.33	420.24
hd, Departure Headway	5.12	5.24	5.91	5.11
x, Degree of Utilization	0.41	0.18	0.05	0.60
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.12	3.24	3.91	3.11
Capacity	702.68	687.26	608.53	704.23
Delay	11.70	9.40	9.25	15.37
LOS	B	A	A	C
Q95, 95% Queue Length				
Approach Delay	11.70	9.40	9.25	15.37
Approach LOS	B	A	A	C
Intersection Delay	13.05			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.13	
Worst Case Delay	10.13	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	8.00	45.00	31.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	10.96	61.64	42.47	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			61.64		2.74	86.30
Conflicting Volume (Veh)			49.32		209.59	43.84
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			49.32		209.59	43.84
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1570.42		783.27	1032.04
Capacity			1570.42		751.74	1032.04

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	10.96	61.64	42.47	2.74	86.30
cmx, Capacity			1570.42		751.74	1032.04
V / C			0.04		0.00	0.08
d, Delay			7.39		10.13	8.83
LOS			A		B	A
dA, Approach Delay	0.00		4.37		8.87	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.30			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	49.32	104.11	89.04
Flared Storage Size			
cmx, Capacity		1570.42	1020.34
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.29
d, Delay		7.39	8.87
LOS		A	A
dA, Approach Delay	0.00	4.37	8.87
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.49	
Worst Case Delay	19.49	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	11.00	462.00	17.00	2.00	413.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	12.22	513.33	18.89	2.22	458.89	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	12.22		18.89	2.22		
Conflicting Volume (Veh)	465.56		1000.00	462.22		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	465.56		1000.00	462.22		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1045.34		271.83	603.71		
Capacity	1045.34		267.28	603.71		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	12.22	513.33	18.89	2.22	458.89	6.67
cmx, Capacity	1045.34		267.28	603.71		
V / C	0.01		0.07	0.00		
d, Delay	8.48		19.49	11.98		
LOS	A		C	B		
dA, Approach Delay	0.20		18.69		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.14				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	525.56	21.11	465.56
Flared Storage Size			
cmx, Capacity	1045.34	283.93	
V / C	0.50	0.07	
Q95, 95% Queue Length	2.90	0.24	
d, Delay	8.48	18.69	
LOS	A	C	
dA, Approach Delay	0.20	18.69	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.01	
Worst Case Delay	21.61	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	21.00	459.00	32.00	6.00	415.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	23.60	515.73	35.96	6.74	466.29	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	23.60		35.96	6.74		
Conflicting Volume (Veh)	470.79		1031.46	468.54		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	470.79		1031.46	468.54		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1101.54		260.36	598.79		
Capacity	1101.54		252.35	598.79		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	23.60	515.73	35.96	6.74	466.29	4.49
cmx, Capacity	1101.54		252.35	598.79		
V / C	0.02		0.14	0.01		
d, Delay	8.34		21.61	13.35		
LOS	A		C	B		
dA, Approach Delay	0.36		20.30		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.26				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	539.33	42.70	470.79
Flared Storage Size			
cmx, Capacity	1101.54	277.73	
V / C	0.49	0.15	
Q95, 95% Queue Length	2.77	0.54	
d, Delay	8.34	20.30	
LOS	A	C	
dA, Approach Delay	0.36	20.30	0.00
Approach LOS		C	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.25	
Worst Case Delay	9.89	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	115.00	15.00	12.00	55.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	130.68	17.05	13.64	62.50

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			13.64	
Conflicting Volume (Veh)	228.98	139.20			147.73	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	228.98	139.20			147.73	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	763.64	863.25			1397.94	
Capacity	755.91	863.25			1397.94	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	130.68	17.05	13.64	62.50
cmx, Capacity	755.91	863.25			1397.94	
V / C	0.03	0.00			0.01	
d, Delay	9.89	9.30			7.60	
LOS	A	A			A	
dA, Approach Delay	9.89		0.00		1.36	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	147.73	76.14
Flared Storage Size			
cmx, Capacity	755.91		1397.94
V / C	0.03		0.05
Q95, 95% Queue Length	0.08		0.17
d, Delay	9.89		7.60
LOS	A		A
dA, Approach Delay	9.89	0.00	1.36
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.05	
Worst Case Delay	13.47	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	170.00	84.00	90.00	118.00	8.00	85.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	180.85	89.36	95.74	125.53	8.51	90.43

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			95.74		8.51	90.43
Conflicting Volume (Veh)			270.21		542.55	225.53
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			270.21		542.55	225.53
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1287.50		504.50	806.43
Capacity			1287.50		463.99	806.43

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	180.85	89.36	95.74	125.53	8.51	90.43
cmx, Capacity			1287.50		463.99	806.43
V / C			0.07		0.02	0.11
d, Delay			8.02		13.47	10.18
LOS			A		B	B
dA, Approach Delay	0.00		3.47		10.46	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.64			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	270.21	221.28	98.94
Flared Storage Size			
cmx, Capacity		1287.50	758.29
V / C		0.17	0.13
Q95, 95% Queue Length		0.62	0.45
d, Delay		8.02	10.46
LOS		A	B
dA, Approach Delay	0.00	3.47	10.46
Approach LOS			B

Scenario 8

Diverters at OR 224, Linwood Ave, and 37th Ave

Node 10386: King Rd & Linwood Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		71.28	
Average LOS		E	
V/C		0.98	
Loss Time		16	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	266	72	96	343	0	91	266	62	125	493	92
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	69	19	25	89	0	24	69	16	33	128	24
Adjusted Volume	41	277	75	100	357	0	95	277	65	130	514	96

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	41412	41413	41410	41411	41416	41417	41414	41415
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	352	100	357	95	342	130	609
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.00	0.00	0.19	0.00	0.16

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	41412	41413	41410	41411	41416	41417	41414	41415
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	1.000	1.000	0.972	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1732	1676	1706

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	41412	41413	41410	41411	41416	41417	41414	41415
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	352.08	100	357.29	94.79	341.67	130.21	609.38
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1732	1676	1706
c, Capacity	46	471	91	504	117	550	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.71	0.81	0.62	1.09	1.18
d1, Uniform Delay	27.17	18.58	26.45	17.91	25.62	16.23	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.33	123.54	8.17	42.91	5.19	107.64	100.95
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.92	149.99	26.09	68.53	21.43	133.64	120.50
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.32		53.18		31.66		122.82	
Approach LOS	D		D		C		F	
dI, Intersection Delay	71.28							
Intersection LOS	E							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	41412	41413	41410	41411	41416	41417	41414	41415
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	5.00	1.56	4.98	1.45	4.52	2.03	9.48
Q2, Second-term Queued	0.44	1.31	2.05	1.16	0.63	0.85	2.51	14.51
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.31	3.61	6.14	2.08	5.37	4.54	23.99
fB%, % Factor	1.90	1.64	1.74	1.65	1.83	1.67	1.70	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.36	6.29	10.11	3.81	8.97	7.72	36.08

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	41412	41413	41410	41411	41416	41417	41414	41415
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.06	0.20	0.08	0.36
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	41412	41413	41410	41411	41416	41417	41414	41415
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.24	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1780	36	1636	14	112
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	478	10	440	4	30
Adjusted Volume	1914	39	1759	15	120

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	41422	41421	41418	41420	41424
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1914	39	1759	15	120
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	41422	41421	41418	41420	41424
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	41422	41421	41418	41420	41424
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1913.98	38.71	1759.14	15.05	120.43
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.72	0.21	0.66	0.01	0.66
d1, Uniform Delay	5.65	48.01	5.09	2.42	50.74
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.71	2.66	1.31	0.02	17.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.36	50.67	6.40	2.44	68.22
LOS	A	D	A	A	E
dA, Approach Delay	7.36	50.67	6.37		68.22
Approach LOS	A	D	A		E
dI, Intersection Delay	9.24				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	41422	41421	41418	41420	41424
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	15.78	1.17	13.07	0.10	3.84
Q2, Second-term Queued	4.17	0.11	3.26	0.02	0.76
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	19.94	1.28	16.33	0.12	4.60
fB%, % Factor	1.51	1.89	1.52	1.99	1.70
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.10	2.42	24.81	0.24	7.82

Signal Timing Information					
Approach	N	E	S		W
Lane Group	41422	41421	41418	41420	41424
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.02	0.53	0.01	0.08
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	41422	41421	41418	41420	41424
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdifff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				42.88								
Average LOS				D								
V/C				0.87								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	127	1715	88	119	253	141	205	1483	97	18	92	6
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	34	456	23	32	67	38	55	394	26	5	24	2
Adjusted Volume	135	1824	94	127	269	150	218	1578	103	19	98	6

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	135	1824	94	127	269	35	115	218	1578	103	19	98	6
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.726	1.000	1.000	1.000	0.950	1.000	1.000	0.478	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1281	3427	1515	1515	1676	3327	1500	860	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	135.11	1824.47	93.62	126.6	269.15	35	115	218.09	1577.66	103.19	19.15	97.87	6.38
s, Saturation Flow Rate	1676	3360	1515	1281	3427	1515	1515	1676	3327	1500	860	3427	1530
c, Capacity	335	1988	896	235	628	303	278	182	1664	750	158	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.4	0.92	0.1	0.54	0.43	0.12	0.41	1.2	0.95	0.14	0.12	0.16	0.02
d1, Uniform Delay	41.77	21.89	10.66	44.41	43.43	9.17	33.20	53.50	28.52	16.11	40.93	41.19	40.18
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.58	8.26	0.23	8.61	2.13	0.77	4.50	131.18	12.80	0.38	1.57	0.53	0.15
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	45.34	30.15	10.90	53.02	45.56	9.95	37.70	184.68	41.33	16.49	42.50	41.72	40.33
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	30.27			43.35				56.44			41.77		
Approach LOS	C			D				E			D		
dI, Intersection Delay	42.88												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.92	28.54	1.36	3.82	4.18	0.96	3.39	7.27	26.26	1.85	0.53	1.44	0.17
Q2, Second-term Queued	0.43	8.82	0.15	0.57	0.47	0.08	0.40	6.37	8.99	0.18	0.05	0.12	0.01
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.51	0.64	0.61	0.57	0.42	1.27	1.14	0.38	0.64	0.57
Q, Average Back of Queue	4.35	37.36	1.51	4.39	4.65	1.03	3.78	13.64	35.25	2.03	0.59	1.56	0.19
fB%, % Factor	1.71	1.50	1.87	1.71	1.70	1.91	1.73	1.53	1.50	1.83	1.94	1.87	1.98
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	7.44	56.05	2.82	7.50	7.89	1.97	6.56	20.90	52.90	3.72	1.14	2.91	0.37

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.08	0.54	0.06	0.10	0.08	0.02	0.08	0.13	0.47	0.07	0.02	0.03	0.00
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	41434	41435	41437	41429	41430	41432	41433	41425	41426	41428	41438	41439	41441
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				126.60							19.15		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				4.22							0.64		
Vo, Opposing Flow				97.87							269.15		
Volc, Adjusted Opposing F				1.80							4.94		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.00							4.79		
gu				22.00							17.21		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.38							1.64		
EL2				0.00							0.00		
gdiff				0.00							0.00		
fm				0.73							0.48		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.73	1.00	1.00	1.00	0.95	1.00	1.00	0.48	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type	Signalized		
Method	HCM 2000		
Average Delay	54.08		
Average LOS	D		
V/C	0.97		
Loss Time	14		

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	274	1640	22	70	237	132	54	1599	37	7	293	55
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	71	427	6	18	62	34	14	416	10	2	76	14
Adjusted Volume	285	1708	23	73	247	138	56	1666	39	7	305	57

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	41458	41459	41461	41456	41452	41453	41455	41462
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	285	1708	23	457	56	1666	39	370
PLT, Proportion Left Turns	1.00	0.00	0.00	0.16	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.30	0.00	0.00	1.00	0.15

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	41458	41459	41461	41456	41452	41453	41455	41462
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.743	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.955	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2316	1613	3360	1471	3045

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	41458	41459	41461	41456	41452	41453	41455	41462
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	285.42	1708.33	22.92	457.29	56.25	1665.63	38.54	369.79
s, Saturation Flow Rate	1710	3327	1530	2316	1613	3360	1471	3045
c, Capacity	323	1869	859	531	149	1562	684	698
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.88	0.91	0.03	0.86	0.38	1.07	0.06	0.53
d1, Uniform Delay	47.35	23.69	11.70	44.42	51.20	32.10	17.64	40.58
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	27.47	8.42	0.06	16.67	7.12	42.68	0.16	2.87
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	74.82	32.11	11.76	61.09	58.32	74.78	17.79	43.45
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	37.92			61.09	73.01			43.45
Approach LOS	D			E	E			D
dI, Intersection Delay	54.08							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	41458	41459	41461	41456	41452	41453	41455	41462
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.26	26.94	0.34	7.69	1.76	29.16	0.71	5.68
Q2, Second-term Queued	2.94	8.24	0.03	2.38	0.22	15.41	0.06	0.75
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.20	35.18	0.37	10.07	1.98	44.57	0.77	6.43
fB%, % Factor	1.54	1.50	1.96	1.57	1.84	1.50	1.93	1.64
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.83	52.78	0.74	15.78	3.64	66.86	1.48	10.54

Signal Timing Information								
Approach	N			E	S			W
Lane Group	41458	41459	41461	41456	41452	41453	41455	41462
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.20	0.03	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	41458	41459	41461	41456	41452	41453	41455	41462
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				72.92				7.29
PLT, Proportion LT in Lane				0.16				0.02
PLTo, Proportion LT in Op				0.02				0.16
LT Volume per Cycle				2.43				0.24
Vo, Opposing Flow				369.79				457.29
Volc, Adjusted Opposing F				6.47				8.01
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				1.19				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				7.19				10.24
gu				20.31				11.53
PL				0.43				0.04
de facto caused by PL >=								
EL1				1.90				2.08
EL2				22.19				0.00
gdif				0.00				0.00
fm				0.58				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.74	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.56
Worst Case Delay	12.1
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	422.00	47.00	392.00	157.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	463.74	51.65	430.77	172.53

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		51.65		
Conflicting Volume (Veh)		517.03		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		517.03		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		558.26		
Capacity		558.26		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	463.74	51.65	430.77	172.53
cmx, Capacity		558.26		
V / C		0.09		
d, Delay		12.10		
LOS		B		
dA, Approach Delay	0.00	12.10	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	463.74	51.65	603.30
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.10	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.25	
Average LOS	B	
V/C	0.44	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	337	85	166	446
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	89	22	44	117
Adjusted Volume	89	118	355	89	175	469

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	41479	41478	41480	41482
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	444	175	469
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	41479	41478	41480	41482
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.386
fRT, Right Turn Adjustment	0.923	0.973	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1700	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	41479	41478	41480		41482
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	444.21	132	43	469.47
			175		
s, Saturation Flow Rate	1627	1700	1693	688	1748
			829		
c, Capacity	560	756	132	329	971
			460		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.59	1.00	0.13	0.48
			0.38		
d1, Uniform Delay	22.16	18.80	10.87		12.15
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	3.34	2.37		1.72
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.14	13.24		13.88
LOS	C	C	B		B
dA, Approach Delay	24.04	22.14	13.71		
Approach LOS	C	C	B		
dI, Intersection Delay	18.25				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	41479	41478	41480	41482
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.35	2.46	7.13
Q2, Second-term Queued	0.44	1.30	0.40	1.03
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.65	2.86	8.16
fB%, % Factor	1.71	1.57	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.17	5.10	13.04

Signal Timing Information

Approach	N	E	W	
Lane Group	41479	41478	41480	41482
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
Signal Type	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian Time	0	0	0	0
L, Total Loss Time per Cycle	4.50	4.50	4.50	4.50
I1, Start Up Loss Time	2.00	2.00	2	0
I1p, Permitted Start Up Loss Time	0.00	0.00	0	0
I2, Clearance Loss Time	2.50	2.50	0	2.5
Green Time Start	54.5	9	0	9
Green Time End	85.5	49	9	50
G, Actual Green Time	31	40	9	41
gi, Effective Green Time	31	40	7	43
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
(v/s)i, Volume / Saturation Flow	0.13	0.26	0.08	0.06
Critical Lane Group	Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N	E	W	
Lane Group	41479	41478	41480	41482
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
Subject is Single(S) or Multiple(M)				S
Opposed by Single(S) or Multiple(M)				M
C, Cycle Length				90.00
G(s), Actual GT				41.00
g(s), Eff. perm. GT				43.00
go(s), Opposing Eff. GT				40.00
No, Number Lanes in Opposing Flow				1
N, Number Left Lanes				1.00
VLT, Adj. LT Flow Rate				174.74
PLT, Proportion LT in Lane				1.00
PLTo, Proportion LT in Opposing Flow				0.00
LT Volume per Cycle				4.37
Vo, Opposing Flow				444.21
Volc, Adjusted Opposing Flow				11.11
FLUo, Opposing Lane Utilization				1.00
Rpo, Opposing Platoon Ratio				1.00
gf				0.00
qro, Opposing Queue Ratio				0.56
gq, Opposing Queue Clearance				11.88
gu				31.12
PL				1.00
de facto caused by PL >= 0.5				
EL1				1.87
EL2				0.00
gdifff				0.00
fm				0.39
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39

Pedestrian and Bicycle Adjustment Factors

Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	2.84	
Worst Case Delay	12.9	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	385.00	105.00	141.00	310.00	37.00	111.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	423.08	115.38	154.95	340.66	40.66	121.98

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			154.95			121.98
Conflicting Volume (Veh)			360.99			480.77
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			360.99			480.77
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			683.60			577.17
Capacity			683.60			577.17

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	423.08	115.38	154.95	340.66	40.66	121.98
cmx, Capacity			683.60			577.17
V / C			0.23			0.21
d, Delay			11.80			12.90
LOS			B			B
dA, Approach Delay	0.00		11.80	0.00		12.90
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	538.46	154.95	381.32	121.98
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.80	0.00	12.90
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.79								
Worst Case Delay				13.32								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	116.00	20.00	83.00	20.00	15.00	9.00	37.00	51.00	0.00	24.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	126.09	21.74	90.22	21.74	16.30	9.78	40.22	55.43	0.00	26.09	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	126.09	21.74	90.22			9.78	40.22	55.43	0.00		
Conflicting Volume (Veh)	292.39	252.72	29.89	42.39			318.48	252.72	34.24	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	292.39	252.72	29.89	42.39			318.48	252.72	34.24	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	663.84	650.62	1036.06	1579.52			630.42	652.34	1044.66	1585.26		
Capacity	570.77	612.61	1036.06	1579.52			497.07	614.23	1044.66	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	126.09	21.74	90.22	21.74	16.30	9.78	40.22	55.43	0.00	26.09	16.30
cmx, Capacity	570.77	612.61	1036.06	1579.52			497.07	614.23	1044.66	1585.26		
V / C	0.04	0.21	0.02	0.06			0.02	0.07	0.05	0.00		
d, Delay	13.32	12.89	10.49	7.42			13.00	11.62	9.20	7.27		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.64			5.22			10.47			0.00		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.43						0.00		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	169.57	128.26	105.43	42.39
Flared Storage Size				
cmx, Capacity	640.13	1579.52	762.80	0.00
V / C	0.26	0.08	0.14	0.00
Q95, 95% Queue Length	1.06	0.26	0.48	0.00
d, Delay	12.64	7.42	10.47	2.42
LOS	B	A	B	A
dA, Approach Delay	12.64	5.22	10.47	0.00
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.07								
Worst Case Delay				34.73								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	139.00	4.00	83.00	31.00	95.00	29.00	136.00	149.00	4.00	7.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	163.53	4.71	97.65	36.47	111.76	34.12	160.00	175.29	4.71	8.24	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			97.65	36.47	111.76	34.12			4.71	8.24	54.12
Conflicting Volume (Veh)	335.29			807.06	780.59	247.65	168.24			852.35	865.88	165.88
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	335.29			807.06	780.59	247.65	168.24			852.35	865.88	165.88
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1218.40			300.99	328.82	791.08	1421.68			281.68	293.47	873.28
Capacity	1218.40			244.16	280.18	791.08	1421.68			193.56	250.06	873.28

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adj	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	163.53	4.71	97.65	36.47	111.76	34.12	160.00	175.29	4.71	8.24	54.12
cmx, Capacity	1218.40			244.16	280.18	791.08	1421.68			193.56	250.06	873.28
V / C	0.12			0.40	0.13	0.14	0.02			0.02	0.03	0.06
d, Delay	8.36			34.73	32.84	10.30	7.59			24.46	20.26	9.99
LOS	A			D	D	B	A			C	C	A
dA, Approach Delay	3.92			23.35			0.70			12.26		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.23					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	168.24	134.12	111.76	369.41	67.06
Flared Storage Size						
cmx, Capacity			253.01		1421.68	562.50
V / C			0.53		0.26	0.12
Q95, 95% Queue Length			2.84		1.04	0.40
d, Delay			34.22		7.59	12.26
LOS			D		A	B
dA, Approach Delay	3.92		23.35		0.70	12.26
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.88	
Worst Case Delay	15.25	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	21.00	16.00	307.00	52.00	19.00	320.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	22.34	17.02	326.60	55.32	20.21	340.43

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	22.34	17.02			20.21	
Conflicting Volume (Veh)	735.11	354.26			381.91	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	735.11	354.26			381.91	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	385.23	694.11			1187.61	
Capacity	377.03	694.11			1187.61	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	22.34	17.02	326.60	55.32	20.21	340.43
cmx, Capacity	377.03	694.11			1187.61	
V / C	0.06	0.02			0.02	
d, Delay	15.25	10.89			8.08	
LOS	C	B			A	
dA, Approach Delay	13.36		0.00		0.45	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	39.36	381.91	360.64
Flared Storage Size			
cmx, Capacity	469.85		1187.61
V / C	0.08		0.30
Q95, 95% Queue Length	0.27		1.29
d, Delay	13.36		8.08
LOS	B		A
dA, Approach Delay	13.36	0.00	0.45
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.65	
Worst Case Delay	25.02	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	33.00	452.00	5.00	25.00	693.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	33.67	461.22	5.10	25.51	707.14	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	33.67		5.10	25.51		
Conflicting Volume (Veh)	708.16		1236.22	707.65		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	708.16		1236.22	707.65		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	885.96		196.30	431.53		
Capacity	885.96		188.84	431.53		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	33.67	461.22	5.10	25.51	707.14	1.02
cmx, Capacity	885.96		188.84	431.53		
V / C	0.04		0.03	0.06		
d, Delay	9.22		25.02	14.29		
LOS	A		D	B		
dA, Approach Delay	0.63		16.08		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	33.67	461.22	30.61	708.16
Flared Storage Size				
cmx, Capacity			355.41	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			16.08	
LOS			C	
dA, Approach Delay	0.63		16.08	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.74								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	31.00	39.00	8.00	5.00	51.00	9.00	7.00	47.00	3.00	11.00	61.00	17.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	32.98	41.49	8.51	5.32	54.26	9.57	7.45	50.00	3.19	11.70	64.89	18.09
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	69.15	60.64	94.68
Left Turn Flow Rate	32.98	5.32	7.45	11.70
Right Turn Flow Rate	8.51	9.57	3.19	18.09
PLT, Proportion LT	0.40	0.08	0.12	0.12
PRT, Proportion RT	0.10	0.14	0.05	0.19
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.02	-0.07	-0.01	-0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	69.15	60.64	94.68
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.06	0.05	0.08
hd, iteration 1	4.24	4.15	4.24	4.11
Difference, iteration 1	1.04	0.95	1.04	0.91
hd, iteration 2	4.34	4.25	4.34	4.21
Difference, iteration 2	0.10	0.10	0.10	0.10
hd, iteration 3	4.35	4.26	4.35	4.21
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.35	4.26	4.35	4.21
x final, Degree of Utilization	0.10	0.08	0.07	0.11

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	69.15	60.64	94.68
hd, Departure Headway	4.35	4.26	4.35	4.21
x, Degree of Utilization	0.10	0.08	0.07	0.11
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.35	2.26	2.35	2.21
Capacity	826.87	844.04	827.20	854.02
Delay	7.84	7.64	7.70	7.74
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.84	7.64	7.70	7.74
Approach LOS	A	A	A	A
Intersection Delay	7.74			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.06	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	103.00	83.00	1.00	104.00	253.00	218.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	113.19	91.21	1.10	114.29	278.02	239.56
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	204.40	1.10	392.31	239.56
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	91.21	1.10	278.02	239.56
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.45	1.00	0.71	1.00
PHV, Proportion HV	3.34	0.00	1.71	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.21	-0.60	-0.40	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	204.40	1.10	392.31	239.56
hd initial	3.20	3.20	3.20	3.20
x initial	0.18	0.00	0.35	0.21
hd, iteration 1	4.43	3.65	3.65	3.99
Difference, iteration 1	1.23	0.45	0.45	0.79
hd, iteration 2	4.59	3.79	3.71	4.09
Difference, iteration 2	0.16	0.14	0.06	0.10
hd, iteration 3	4.60	3.81	3.72	4.10
Difference, iteration 3	0.02	0.02	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.60	3.81	3.72	4.10
x final, Degree of Utilization	0.26	0.00	0.41	0.27

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	204.40	1.10	392.31	239.56
hd, Departure Headway	4.60	3.81	3.72	4.10
x, Degree of Utilization	0.26	0.00	0.41	0.27
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.60	1.81	1.72	2.10
Capacity	781.65	945.23	967.55	877.53
Delay	9.23	6.81	9.23	8.63
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	9.23	6.81	9.23	8.63
Approach LOS	A	A	A	A
Intersection Delay	9.06			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.03	
Worst Case Delay	30.21	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	156.00	139.00	131.00	42.00	300.00	197.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	159.18	141.84	133.67	42.86	306.12	201.02

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	159.18		133.67	42.86		
Conflicting Volume (Veh)	507.14		866.84	406.63		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	507.14		866.84	406.63		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1068.08		325.98	646.56		
Capacity	1068.08		272.98	646.56		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	159.18	141.84	133.67	42.86	306.12	201.02
cmx, Capacity	1068.08		272.98	646.56		
V / C	0.15		0.49	0.07		
d, Delay	8.96		30.21	10.96		
LOS	A		D	B		
dA, Approach Delay	4.74		25.54		0.00	
Approach LOS			D			
dRank1, Rank 1 Delay	1.46				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	301.02	133.67	42.86	507.14
Flared Storage Size				
cmx, Capacity	1068.08			
V / C	0.28			
Q95, 95% Queue Length	1.16			
d, Delay	8.96			
LOS	A			
dA, Approach Delay	4.74	25.54		0.00
Approach LOS		D		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.12	
Worst Case Delay	15.07	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	31.00	22.00	270.00	32.00	9.00	330.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	34.83	24.72	303.37	35.96	10.11	370.79

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	34.83	24.72			10.11	
Conflicting Volume (Veh)	712.36	321.35			339.33	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	712.36	321.35			339.33	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	401.77	724.15			1231.11	
Capacity	397.55	724.15			1231.11	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	34.83	24.72	303.37	35.96	10.11	370.79
cmx, Capacity	397.55	724.15			1231.11	
V / C	0.09	0.03			0.01	
d, Delay	15.07	10.99			7.95	
LOS	C	B			A	
dA, Approach Delay	13.38		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	59.55	339.33	380.90
Flared Storage Size			
cmx, Capacity	489.12		1231.11
V / C	0.12		0.31
Q95, 95% Queue Length	0.41		1.33
d, Delay	13.38		7.95
LOS	B		A
dA, Approach Delay	13.38	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.58	
Average LOS		A	
V/C		0.57	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	26	209	159	68	288	20	0	89	67	107	442	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	7	56	43	18	77	5	0	24	18	29	119	1
Adjusted Volume	28	225	171	73	310	22	0	96	72	115	475	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	41509	41510	41507	41508	41513	41514	41511	41512
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	253	171	73	331	96	72	115	481
PLT, Proportion Left Turns	0.11	0.00	1.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	41509	41510	41507	41508	41513	41514	41511	41512
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.969	1.000	0.429	1.000	1.000	1.000	0.592	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1485	772	1748	1782	1530	987	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	41509	41510	41507	41508	41513	41514	41511	41512
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	252.69	170.97	73.12	331.18	95.7	72.04	115.05	480.65
s, Saturation Flow Rate	1710	1485	772	1748	1782	1530	987	1762
c, Capacity	513	446	335	757	535	459	428	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.49	0.38	0.22	0.44	0.18	0.16	0.27	0.63
d1, Uniform Delay	8.62	8.31	5.32	5.94	7.77	7.71	5.45	6.62
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.36	2.49	1.50	1.83	0.73	0.73	1.54	3.92
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	11.98	10.80	6.82	7.78	8.50	8.44	7.00	10.54
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	11.50		7.60		8.47		9.85	
Approach LOS	B		A		A		A	
dI, Intersection Delay	9.58							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	41509	41510	41507	41508	41513	41514	41511	41512
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.73	1.13	0.38	1.93	0.59	0.44	0.62	3.12
Q2, Second-term Queued	0.32	0.19	0.07	0.34	0.07	0.06	0.11	0.73
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.33	0.30	0.25	0.44	0.34	0.31	0.29	0.44
Q, Average Back of Queue	2.05	1.31	0.45	2.27	0.66	0.50	0.72	3.85
fB%, % Factor	1.83	1.88	1.96	1.82	1.94	1.95	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.75	2.47	0.88	4.12	1.29	0.97	1.40	6.67

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	41509	41510	41507	41508	41513	41514	41511	41512
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.15	0.12	0.09	0.19	0.05	0.05	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	41509	41510	41507	41508	41513	41514	41511	41512
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	27.96		73.12				115.05	
PLT, Proportion LT in Lane	0.11		1.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	0.23		0.61				0.96	
Vo, Opposing Flow	95.70		480.65				331.18	
Volc, Adjusted Opposing F	0.84		4.01				2.76	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	2.38		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.19				0.00	
gu	6.62		10.81				13.00	
PL	0.11		1.00				1.00	
de facto caused by PL >=								
EL1	1.40		1.94				1.69	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.97		0.43				0.59	
fLT, Left Turn Adjustment	0.97	1.00	0.43	1.00	1.00	1.00	0.59	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	23.97
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	94.00	243.00	32.00	24.00	13.00	75.00	175.00	27.00	370.00	37.00	54.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	98.95	255.79	33.68	25.26	13.68	78.95	184.21	28.42	389.47	38.95	56.84
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	112.63	255.79	58.95	13.68	291.58	428.42	56.84
Left Turn Flow Rate	13.68	0.00	33.68	0.00	78.95	389.47	0.00
Right Turn Flow Rate	0.00	255.79	0.00	13.68	28.42	0.00	56.84
PLT, Proportion LT	0.12	0.00	0.57	0.00	0.27	0.91	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.10	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.29	0.00	0.63	1.82	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.06	-0.65	0.31	-0.70	0.01	0.49	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	112.63	255.79	58.95	13.68	291.58	428.42	56.84
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.10	0.23	0.05	0.01	0.26	0.38	0.05
hd, iteration 1	5.66	4.95	6.24	5.22	5.68	6.09	4.90
Difference, iteration 1	2.46	1.75	3.04	2.02	2.48	2.89	1.70
hd, iteration 2	6.68	5.97	7.39	6.36	6.63	6.80	5.60
Difference, iteration 2	1.02	1.02	1.15	1.14	0.95	0.71	0.70
hd, iteration 3	7.00	6.28	7.85	6.81	6.94	7.10	5.90
Difference, iteration 3	0.31	0.31	0.46	0.45	0.30	0.30	0.30
hd, iteration 4	7.12	6.40	8.01	6.97	7.05	7.19	5.99
Difference, iteration 4	0.12	0.12	0.16	0.16	0.12	0.09	0.09
hd, iteration 5	7.16	6.45	8.06	7.03	7.09	7.23	6.03
Difference, iteration 5	0.04	0.04	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.16	6.45	8.06	7.03	7.09	7.23	6.03
x final, Degree of Utilization	0.22	0.46	0.13	0.03	0.57	0.86	0.10

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.45								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	143	259	21	358	319	67	36	236	416	33	296	27
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	37	67	5	92	82	17	9	61	107	9	76	7
Adjusted Volume	147	267	22	369	329	69	37	243	429	34	305	28

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	41517	41518	41515	41516	41521	41522	41523	41519	41520
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	147	289	369	398	280	114	315	34	333
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.08

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	41517	41518	41515	41516	41521	41522	41523	41519	41520
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.987
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1777

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	41517	41518	41515	41516	41521	41522	41523	41519	41520
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	147.42	288.66	369.07	397.94	280.41	114.36	314.5	34.02	332.99
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1777
c, Capacity	282	283	373	714	331	337	286	57	395
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.52	1.02	0.99	0.56	0.85	0.34	1.1	0.6	0.84
d1, Uniform Delay	34.23	37.50	34.91	20.25	35.24	7.85	26.77	42.90	33.50
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.77	59.26	44.36	3.13	22.62	2.73	82.38	38.56	19.24
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	41.00	96.76	79.26	23.38	57.87	10.58	109.14	81.46	52.74
LOS	D	F	E	C	E	B	F	F	D
dA, Approach Delay	77.91		50.27		72.98			55.40	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.45								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	41517	41518	41515	41516	41521	41522	41523	41519	41520
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.36	7.22	9.20	7.60	6.77	2.41	7.86	0.84	7.97
Q2, Second-term Queued	0.50	4.53	4.93	1.11	2.17	0.27	6.45	0.21	2.44
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.86	11.74	14.13	8.71	8.94	2.68	14.31	1.05	10.40
fB%, % Factor	1.73	1.55	1.53	1.59	1.58	1.79	1.53	1.91	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	6.69	18.18	21.61	13.82	14.16	4.80	21.87	2.00	16.25

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	41517	41518	41515	41516	41521	41522	41523	41519	41520
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.09	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	41517	41518	41515	41516	41521	41522	41523	41519	41520
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	TWSC	
		Method	HCM 2000	
		dl, Average Delay	24.21	
		Worst Case Delay	90.57	
		Worst Case LOS	F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	162.00	0.00	209.00	190.00	82.00	251.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	180.00	0.00	232.22	211.11	91.11	278.89

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			180.00	0.00	232.22		91.11	278.89
Conflicting Volume (Veh)	211.11			649.44	464.44	0.00		675.56	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	211.11			649.44	464.44	0.00		675.56	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1371.43			381.19	498.08	1629.70		376.61	1087.94
Capacity	1371.43			198.61	427.11	1629.70		322.94	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	180.00	0.00	232.22	211.11	91.11	278.89
cmx, Capacity	1371.43			198.61	427.11	1629.70		322.94	1087.94
V / C	0.00			0.91	0.00	0.14		0.28	0.26
d, Delay	7.62			90.57	80.87	7.58		22.09	14.25
LOS	A			F	F	A		C	B
dA, Approach Delay	2.54			90.57		3.97		16.18	
Approach LOS				F				C	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	180.00	232.22	211.11	370.00
Flared Storage Size					
cmx, Capacity	1371.43	198.61			687.13
V / C	0.00	0.91			0.54
Q95, 95% Queue Length	0.00	7.13			3.24
d, Delay	2.54	90.57			16.18
LOS	A	F			C
dA, Approach Delay	2.54	90.57	3.97		16.18
Approach LOS		F			C

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.01	
Average LOS		A	
V/C		0.52	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	341	42	13	37	72	80	517	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	90	11	3	10	19	21	136	3
Adjusted Volume	75	33	42	56	359	44	14	39	76	84	544	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	41526	41527	41524	41525	41530	41531	41528	41529
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	403	53	76	84	558
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.26	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.11	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	41526	41527	41524	41525	41530	41531	41528	41529
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.813	1.000	0.429	1.000	0.905	1.000	0.554	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1464	1530	758	1702	1630	1530	997	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	41526	41527	41524	41525	41530	41531	41528	41529
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	403.16	52.63	75.79	84.21	557.89
s, Saturation Flow Rate	1464	1530	758	1702	1630	1530	997	1758
c, Capacity	244	255	442	993	272	255	582	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.41	0.19	0.3	0.14	0.54
d1, Uniform Delay	13.49	12.85	3.37	4.09	12.92	13.15	3.41	4.58
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	5.67	1.39	0.59	1.23	1.59	2.96	0.52	2.07
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.16	14.24	3.96	5.33	14.50	16.11	3.94	6.65
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.77		5.16		15.45		6.29	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.01							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	41526	41527	41524	41525	41530	41531	41528	41529
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.20	0.45	0.66	0.38	3.40
Q2, Second-term Queued	0.17	0.05	0.05	0.41	0.06	0.10	0.07	0.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.41	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.61	0.51	0.76	0.45	4.13
fB%, % Factor	1.90	1.96	1.97	1.80	1.95	1.93	1.96	1.72
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	4.69	1.00	1.47	0.89	7.09

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	41526	41527	41524	41525	41530	41531	41528	41529
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.24	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	41526	41527	41524	41525	41530	41531	41528	41529
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		13.68		84.21	
PLT, Proportion LT in Lane	0.70		1.00		0.26		1.00	
PLTo, Proportion LT in Op	0.11		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.14		0.84	
Vo, Opposing Flow	52.63		557.89		107.37		403.16	
Volc, Adjusted Opposing F	0.55		5.58		1.13		4.03	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.19		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.24		0.00		0.00	
gu	6.00		18.76		5.81		21.00	
PL	0.70		1.00		0.26		1.00	
de facto caused by PL >=								
EL1	1.33		2.08		1.42		1.80	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.91		0.55	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.91	1.00	0.55	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				5.75								
Worst Case Delay				42.12								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	18.00	6.00	68.00	304.00	4.00	34.00	63.00	35.00	11.00	513.00	0.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	18.56	6.19	70.10	313.40	4.12	35.05	64.95	36.08	11.34	528.87	0.00

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	18.56	6.19	70.10			35.05	64.95	36.08	11.34		
Conflicting Volume (Veh)	1057.73	1007.22	315.46	528.87			1019.59	1009.28	528.87	317.53		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1057.73	1007.22	315.46	528.87			1019.59	1009.28	528.87	317.53		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	204.45	235.03	729.66	1013.35			209.68	242.00	553.67	1253.96		
Capacity	136.81	212.21	729.66	1013.35			179.78	218.51	553.67	1253.96		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	18.56	6.19	70.10	313.40	4.12	35.05	64.95	36.08	11.34	528.87	0.00
cmx, Capacity	136.81	212.21	729.66	1013.35			179.78	218.51	553.67	1253.96		
V / C	0.01	0.09	0.01	0.07			0.19	0.30	0.07	0.01		
d, Delay	32.97	23.62	11.59	8.82			42.12	38.58	28.60	7.90		
LOS	D	C	B	A			E	E	D	A		
dA, Approach Delay	21.11			1.59			36.84			0.17		
Approach LOS	C						E					
dRank1, Rank 1 Delay				0.75						0.10		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	25.77	387.63	136.08	540.21
Flared Storage Size				
cmx, Capacity	249.12	1013.35	244.15	1253.96
V / C	0.10	0.38	0.56	0.43
Q95, 95% Queue Length	0.34	1.82	3.08	2.22
d, Delay	21.11	8.82	36.84	7.90
LOS	C	A	E	A
dA, Approach Delay	21.11	1.59	36.84	0.17
Approach LOS	C		E	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.93								
Worst Case Delay				30.76								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	26.00	429.00	9.00	10.00	0.00	10.00	10.00	598.00	14.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	28.57	471.43	9.89	10.99	0.00	10.99	10.99	657.14	15.38

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	28.57			10.99	0.00	10.99	10.99		
Conflicting Volume (Veh)	1218.13	1228.02	476.37	672.53			1219.78	1225.27	664.84	481.32		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1218.13	1228.02	476.37	672.53			1219.78	1225.27	664.84	481.32		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	158.84	179.64	592.74	899.65			158.42	180.32	456.60	1040.84		
Capacity	150.04	172.10	592.74	899.65			149.72	172.75	456.60	1040.84		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	28.57	471.43	9.89	10.99	0.00	10.99	10.99	657.14	15.38
cmx, Capacity	150.04	172.10	592.74	899.65			149.72	172.75	456.60	1040.84		
V / C	0.03	0.02	0.01	0.03			0.07	0.00	0.02	0.01		
d, Delay	29.96	26.88	12.04	9.13			30.76	27.56	14.60	8.50		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	21.72			0.51			22.68			0.14		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	28.57	481.32	21.98	10.99	672.53
Flared Storage Size						
cmx, Capacity	228.46			225.50		
V / C	0.06			0.10		
Q95, 95% Queue Length	0.18			0.32		
d, Delay	21.72			22.68		
LOS	C			C		
dA, Approach Delay	21.72	0.51		22.68	0.14	
Approach LOS	C			C		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	10.75		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	41.00	77.00	70.00	3.00	47.00	36.00	6.00	98.00	1.00	177.00	70.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	48.81	91.67	83.33	3.57	55.95	42.86	7.14	116.67	1.19	210.71	83.33	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	223.81	102.38	125.00	313.10
Left Turn Flow Rate	48.81	3.57	7.14	210.71
Right Turn Flow Rate	83.33	42.86	1.19	19.05
PLT, Proportion LT	0.22	0.03	0.06	0.67
PRT, Proportion RT	0.37	0.42	0.01	0.06
PHV, Proportion HV	1.97	1.09	0.31	0.67
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.15	-0.23	0.01	0.11

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	223.81	102.38	125.00	313.10
hd initial	3.20	3.20	3.20	3.20
x initial	0.20	0.09	0.11	0.28
hd, iteration 1	4.56	4.53	4.81	4.69
Difference, iteration 1	1.36	1.33	1.61	1.49
hd, iteration 2	4.94	4.95	5.23	4.99
Difference, iteration 2	0.38	0.42	0.42	0.31
hd, iteration 3	5.03	5.06	5.34	5.08
Difference, iteration 3	0.09	0.11	0.10	0.09
hd, iteration 4	5.06	5.09	5.36	5.10
Difference, iteration 4	0.02	0.03	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.06	5.09	5.36	5.10
x final, Degree of Utilization	0.31	0.14	0.19	0.44

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	223.81	102.38	125.00	313.10
hd, Departure Headway	5.06	5.09	5.36	5.10
x, Degree of Utilization	0.31	0.14	0.19	0.44
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.06	3.09	3.36	3.10
Capacity	711.64	707.07	671.02	705.69
Delay	10.36	8.95	9.59	12.09
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	10.36	8.95	9.59	12.09
Approach LOS	B	A	A	B
Intersection Delay	10.75			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.15	
Worst Case Delay	10.15	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	8.00	46.00	31.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	10.96	63.01	42.47	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			63.01		2.74	86.30
Conflicting Volume (Veh)			49.32		212.33	43.84
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			49.32		212.33	43.84
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1570.42		780.47	1032.04
Capacity			1570.42		748.35	1032.04

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	10.96	63.01	42.47	2.74	86.30
cmx, Capacity			1570.42		748.35	1032.04
V / C			0.04		0.00	0.08
d, Delay			7.39		10.15	8.83
LOS			A		B	A
dA, Approach Delay	0.00		4.41		8.87	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.30			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	49.32	105.48	89.04
Flared Storage Size			
cmx, Capacity		1570.42	1020.14
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.29
d, Delay		7.39	8.87
LOS		A	A
dA, Approach Delay	0.00	4.41	8.87
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.47	
Worst Case Delay	19.31	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	11.00	461.00	16.00	2.00	409.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	12.22	512.22	17.78	2.22	454.44	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	12.22		17.78	2.22		
Conflicting Volume (Veh)	462.22		995.00	458.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	462.22		995.00	458.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1048.37		273.70	606.76		
Capacity	1048.37		269.13	606.76		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	12.22	512.22	17.78	2.22	454.44	7.78
cmx, Capacity	1048.37		269.13	606.76		
V / C	0.01		0.07	0.00		
d, Delay	8.47		19.31	11.87		
LOS	A		C	B		
dA, Approach Delay	0.20		18.49		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.14				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	524.44	20.00	462.22
Flared Storage Size			
cmx, Capacity	1048.37	286.87	
V / C	0.50	0.07	
Q95, 95% Queue Length	2.88	0.22	
d, Delay	8.47	18.49	
LOS	A	C	
dA, Approach Delay	0.20	18.49	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.95	
Worst Case Delay	21.19	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	20.00	457.00	30.00	6.00	411.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	22.47	513.48	33.71	6.74	461.80	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	22.47		33.71	6.74		
Conflicting Volume (Veh)	467.42		1023.03	464.61		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	467.42		1023.03	464.61		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1104.69		263.39	601.85		
Capacity	1104.69		255.71	601.85		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	22.47	513.48	33.71	6.74	461.80	5.62
cmx, Capacity	1104.69		255.71	601.85		
V / C	0.02		0.13	0.01		
d, Delay	8.33		21.19	13.09		
LOS	A		C	B		
dA, Approach Delay	0.35		19.84		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.24				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	535.96	40.45	467.42
Flared Storage Size			
cmx, Capacity	1104.69	282.82	
V / C	0.49	0.14	
Q95, 95% Queue Length	2.72	0.49	
d, Delay	8.33	19.84	
LOS	A	C	
dA, Approach Delay	0.35	19.84	0.00
Approach LOS		C	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.26	
Worst Case Delay	9.89	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	115.00	15.00	12.00	54.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	130.68	17.05	13.64	61.36

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			13.64	
Conflicting Volume (Veh)	227.84	139.20			147.73	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	227.84	139.20			147.73	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	764.78	863.25			1397.94	
Capacity	757.04	863.25			1397.94	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	130.68	17.05	13.64	61.36
cmx, Capacity	757.04	863.25			1397.94	
V / C	0.03	0.00			0.01	
d, Delay	9.89	9.30			7.60	
LOS	A	A			A	
dA, Approach Delay	9.89		0.00		1.38	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	147.73	75.00
Flared Storage Size			
cmx, Capacity	757.04		1397.94
V / C	0.03		0.05
Q95, 95% Queue Length	0.08		0.17
d, Delay	9.89		7.60
LOS	A		A
dA, Approach Delay	9.89	0.00	1.38
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.08	
Worst Case Delay	13.57	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	169.00	82.00	93.00	121.00	8.00	85.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	179.79	87.23	98.94	128.72	8.51	90.43

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			98.94		8.51	90.43
Conflicting Volume (Veh)			267.02		550.00	223.40
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			267.02		550.00	223.40
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1290.98		499.51	808.65
Capacity			1290.98		458.09	808.65

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	179.79	87.23	98.94	128.72	8.51	90.43
cmx, Capacity			1290.98		458.09	808.65
V / C			0.08		0.02	0.11
d, Delay			8.02		13.57	10.16
LOS			A		B	B
dA, Approach Delay	0.00		3.49		10.46	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.66			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	267.02	227.66	98.94
Flared Storage Size			
cmx, Capacity		1290.98	758.70
V / C		0.18	0.13
Q95, 95% Queue Length		0.64	0.45
d, Delay		8.02	10.46
LOS		A	B
dA, Approach Delay	0.00	3.49	10.46
Approach LOS			B

Scenario 9

Diverters at OR 224, Linwood Ave, and 42nd Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	70.89
Average LOS	E
V/C	0.97
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	266	72	97	344	0	90	268	61	123	496	89
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	69	19	25	90	0	23	70	16	32	129	23
Adjusted Volume	41	277	75	101	358	0	94	279	64	128	517	93

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	57396	57397	57394	57395	57400	57401	57398	57399
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	352	101	358	94	343	128	609
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.00	0.00	0.19	0.00	0.15

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57396	57397	57394	57395	57400	57401	57398	57399
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustmen	1.000	0.968	1.000	1.000	1.000	0.972	1.000	0.977
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1733	1676	1708

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57396	57397	57394	57395	57400	57401	57398	57399
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	352.08	101.04	358.33	93.75	342.71	128.13	609.38
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1733	1676	1708
c, Capacity	46	471	91	504	117	551	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.11	0.71	0.8	0.62	1.07	1.18
d1, Uniform Delay	27.17	18.58	26.45	17.93	25.60	16.24	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.33	127.21	8.25	41.59	5.22	102.26	100.57
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.92	153.66	26.17	67.19	21.47	128.26	120.12
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.32		54.21		31.29		121.54	
Approach LOS	D		D		C		F	
dI, Intersection Delay	70.89							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57396	57397	57394	57395	57400	57401	57398	57399
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	5.00	1.57	5.00	1.44	4.53	1.99	9.48
Q2, Second-term Queued	0.44	1.31	2.15	1.17	0.60	0.86	2.32	14.47
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.52
Q, Average Back of Queue	1.07	6.31	3.72	6.17	2.04	5.39	4.32	23.94
fB%, % Factor	1.90	1.64	1.74	1.65	1.83	1.67	1.71	1.50
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.36	6.47	10.15	3.73	9.01	7.39	36.02

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57396	57397	57394	57395	57400	57401	57398	57399
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.06	0.20	0.08	0.36
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57396	57397	57394	57395	57400	57401	57398	57399
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.12	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1784	36	1608	14	109
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	480	10	432	4	29
Adjusted Volume	1918	39	1729	15	117

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	57406	57405	57402	57404	57408
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1918	39	1729	15	117
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	57406	57405	57402	57404	57408
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	57406	57405	57402	57404	57408
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1918.28	38.71	1729.03	15.05	117.2
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.72	0.21	0.65	0.01	0.65
d1, Uniform Delay	5.67	48.01	5.00	2.42	50.63
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.72	2.66	1.24	0.02	16.35
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.39	50.67	6.24	2.44	66.98
LOS	A	D	A	A	E
dA, Approach Delay	7.39	50.67	6.21		66.98
Approach LOS	A	D	A		E
dI, Intersection Delay	9.12				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	57406	57405	57402	57404	57408
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	15.86	1.17	12.60	0.10	3.73
Q2, Second-term Queued	4.20	0.11	3.12	0.02	0.71
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.06	1.28	15.72	0.12	4.44
fB%, % Factor	1.51	1.89	1.52	1.99	1.71
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.27	2.42	23.92	0.24	7.57

Signal Timing Information					
Approach	N	E	S		W
Lane Group	57406	57405	57402	57404	57408
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.02	0.52	0.01	0.08
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	57406	57405	57402	57404	57408
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.41								
Average LOS				D								
V/C				0.87								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	106	1712	110	103	259	147	204	1442	87	26	156	8
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	28	455	29	27	69	39	54	384	23	7	41	2
Adjusted Volume	113	1821	117	110	276	156	217	1534	93	28	166	9

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	113	1821	117	110	276	36	120	217	1534	93	28	166	9
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.640	1.000	1.000	1.000	0.950	1.000	1.000	0.469	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1129	3427	1515	1515	1676	3327	1500	843	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	112.77	1821.28	117.02	109.57	275.53	36.49	119.89	217.02	1534.04	92.55	27.66	165.96	8.51
s, Saturation Flow Rate	1676	3360	1515	1129	3427	1515	1515	1676	3327	1500	843	3427	1530
c, Capacity	335	1988	896	207	628	303	278	182	1664	750	155	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.34	0.92	0.13	0.53	0.44	0.12	0.43	1.19	0.92	0.12	0.18	0.26	0.03
d1, Uniform Delay	41.17	21.85	10.84	44.32	43.52	9.18	33.32	53.50	27.83	15.99	41.37	42.05	40.24
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.70	8.14	0.30	9.38	2.22	0.81	4.83	129.03	9.97	0.34	2.52	1.03	0.20
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.87	29.98	11.14	53.69	45.73	9.99	38.15	182.53	37.80	16.32	43.89	43.08	40.44
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	29.67			43.26				53.76			43.08		
Approach LOS	C			D				D			D		
dI, Intersection Delay	41.41												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.22	28.43	1.73	3.30	4.28	1.00	3.54	7.23	24.91	1.64	0.78	2.49	0.23
Q2, Second-term Queued	0.33	8.74	0.19	0.50	0.49	0.08	0.42	6.26	7.83	0.16	0.08	0.23	0.02
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.46	0.64	0.61	0.57	0.42	1.27	1.14	0.38	0.64	0.57
Q, Average Back of Queue	3.55	37.17	1.92	3.80	4.78	1.08	3.97	13.49	32.75	1.80	0.86	2.72	0.25
fB%, % Factor	1.75	1.50	1.84	1.73	1.69	1.90	1.73	1.53	1.50	1.85	1.92	1.79	1.98
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.20	55.77	3.53	6.60	8.08	2.05	6.85	20.69	49.14	3.34	1.65	4.87	0.50

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.54	0.08	0.10	0.08	0.02	0.08	0.13	0.46	0.06	0.03	0.05	0.01
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	57418	57419	57421	57413	57414	57416	57417	57409	57410	57412	57422	57423	57425
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				109.57							27.66		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.65							0.92		
Vo, Opposing Flow				165.96							275.53		
Volc, Adjusted Opposing F				3.05							5.06		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.24							5.02		
gu				20.76							16.98		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.48							1.65		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.64							0.47		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.64	1.00	1.00	1.00	0.95	1.00	1.00	0.47	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.48	
Average LOS		D	
V/C		0.97	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	267	1648	22	67	238	163	53	1565	42	7	276	55
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	70	429	6	17	62	42	14	408	11	2	72	14
Adjusted Volume	278	1717	23	70	248	170	55	1630	44	7	288	57

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57442	57443	57445	57440	57436	57437	57439	57446
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	278	1717	23	488	55	1630	44	352
PLT, Proportion Left Turns	1.00	0.00	0.00	0.14	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57442	57443	57445	57440	57436	57437	57439	57446
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.769	0.950	1.000	1.000	0.945
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.948	1.000	1.000	0.850	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2379	1613	3360	1471	3038

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57442	57443	57445	57440	57436	57437	57439	57446
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	278.13	1716.67	22.92	487.5	55.21	1630.21	43.75	352.08
s, Saturation Flow Rate	1710	3327	1530	2379	1613	3360	1471	3038
c, Capacity	323	1869	859	545	149	1562	684	696
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.86	0.92	0.03	0.89	0.37	1.04	0.06	0.51
d1, Uniform Delay	47.11	23.81	11.70	44.84	51.16	32.10	17.70	40.32
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	24.56	8.77	0.06	19.74	6.91	34.99	0.18	2.61
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	71.67	32.58	11.76	64.58	58.08	67.09	17.88	42.94
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	37.73			64.58	65.56			42.94
Approach LOS	D			E	E			D
dI, Intersection Delay	51.48							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57442	57443	57445	57440	57436	57437	57439	57446
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	8.98	27.21	0.34	8.27	1.73	28.54	0.80	5.37
Q2, Second-term Queued	2.65	8.43	0.03	2.82	0.21	13.85	0.07	0.69
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.58	0.37	1.22	1.07	0.69
Q, Average Back of Queue	11.63	35.65	0.37	11.10	1.94	42.39	0.88	6.06
fB%, % Factor	1.55	1.50	1.96	1.55	1.84	1.50	1.92	1.65
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.01	53.49	0.74	17.25	3.57	63.59	1.68	9.99

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57442	57443	57445	57440	57436	57437	57439	57446
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.20	0.03	0.49	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57442	57443	57445	57440	57436	57437	57439	57446
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				69.79				7.29
PLT, Proportion LT in Lane				0.14				0.02
PLTo, Proportion LT in Op				0.02				0.14
LT Volume per Cycle				2.33				0.24
Vo, Opposing Flow				352.08				487.50
Volc, Adjusted Opposing F				6.16				8.53
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				1.47				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.59				11.34
gu				20.91				11.53
PL				0.38				0.04
de facto caused by PL >=								
EL1				1.86				2.15
EL2				19.56				0.00
gdifff				0.00				0.00
fm				0.63				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.77	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.56
Worst Case Delay	12.12
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	420.00	47.00	392.00	159.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	461.54	51.65	430.77	174.73

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		51.65		
Conflicting Volume (Veh)		518.13		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		518.13		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		557.46		
Capacity		557.46		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	461.54	51.65	430.77	174.73
cmx, Capacity		557.46		
V / C		0.09		
d, Delay		12.12		
LOS		B		
dA, Approach Delay	0.00	12.12	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	461.54	51.65	605.49
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.12	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.28	
Average LOS	B	
V/C	0.44	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	338	85	166	449
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	89	22	44	118
Adjusted Volume	89	118	356	89	175	473

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	57463	57462	57464	57466
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	445	175	473
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate					
Approach	N	E	W		
Lane Group	57463	57462	57464		57466
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800		1800
N, Number of Lanes	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000		3.000
fHV, HV Adjustment	1.000	0.971	0.990		0.971
fg, Grade Adjustment	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000		1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.385	1.000
fRT, Right Turn Adjustment	0.923	0.973	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000		1.000
Has Short Lane					
s, Saturation Flow Rate	1627	1700	1693	686	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	57463	57462	57464		57466
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	445.26	132	43	472.63
			175		
s, Saturation Flow Rate	1627	1700	1693	686	1748
			827		
c, Capacity	560	756	132	328	971
			460		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.59	1.00	0.13	0.49
			0.38		
d1, Uniform Delay	22.16	18.82	10.88		12.18
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	3.36	2.38		1.75
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	22.17	13.26		13.93
LOS	C	C	B		B
dA, Approach Delay	24.04	22.17	13.75		
Approach LOS	C	C	B		
dI, Intersection Delay	18.28				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	57463	57462	57464	57466
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.38	2.46	7.20
Q2, Second-term Queued	0.44	1.30	0.40	1.04
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.66	1.12
Q, Average Back of Queue	4.34	9.68	2.86	8.24
fB%, % Factor	1.71	1.57	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.22	5.10	13.16

Signal Timing Information					
Approach	N	E	W		
Lane Group	57463	57462	57464		57466
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.27
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	57463	57462	57464		57466
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				445.26	
Volc, Adjusted Opposing Flow				11.13	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.93	
gu				31.07	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.88	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	2.87	
Worst Case Delay	12.86	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	384.00	98.00	141.00	314.00	34.00	112.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	421.98	107.69	154.95	345.05	37.36	123.08

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			154.95			123.08
Conflicting Volume (Veh)			363.74			475.82
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			363.74			475.82
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			681.17			580.92
Capacity			681.17			580.92

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	421.98	107.69	154.95	345.05	37.36	123.08
cmx, Capacity			681.17			580.92
V / C			0.23			0.21
d, Delay			11.83			12.86
LOS			B			B
dA, Approach Delay	0.00		11.83	0.00		12.86
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	529.67	154.95	382.42	123.08
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.83	0.00	12.86
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.82								
Worst Case Delay				13.45								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	117.00	22.00	85.00	20.00	15.00	8.00	37.00	51.00	0.00	25.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	127.17	23.91	92.39	21.74	16.30	8.70	40.22	55.43	0.00	27.17	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	127.17	23.91	92.39			8.70	40.22	55.43	0.00		
Conflicting Volume (Veh)	297.83	258.15	29.89	43.48			325.54	258.15	35.33	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	297.83	258.15	29.89	43.48			325.54	258.15	35.33	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	658.41	646.11	1036.06	1578.09			623.69	647.83	1043.23	1585.26		
Capacity	565.15	607.42	1036.06	1578.09			488.56	609.03	1043.23	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	127.17	23.91	92.39	21.74	16.30	8.70	40.22	55.43	0.00	27.17	16.30
cmx, Capacity	565.15	607.42	1036.06	1578.09			488.56	609.03	1043.23	1585.26		
V / C	0.04	0.21	0.02	0.06			0.02	0.07	0.05	0.00		
d, Delay	13.45	13.01	10.56	7.42			13.12	11.66	9.20	7.27		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.73			5.26			10.47			0.00		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.44						0.00		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	172.83	130.43	104.35	43.48
Flared Storage Size				
cmx, Capacity	637.93	1578.09	761.82	0.00
V / C	0.27	0.08	0.14	0.00
Q95, 95% Queue Length	1.09	0.27	0.47	0.00
d, Delay	12.73	7.42	10.47	2.42
LOS	B	A	B	A
dA, Approach Delay	12.73	5.26	10.47	0.00
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
		Control Type		TWSC								
		Method		HCM 2000								
		dI, Average Delay		8.09								
		Worst Case Delay		35.17								
		Worst Case LOS		E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	146.00	4.00	83.00	31.00	95.00	29.00	133.00	149.00	4.00	7.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	171.76	4.71	97.65	36.47	111.76	34.12	156.47	175.29	4.71	8.24	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			97.65	36.47	111.76	34.12			4.71	8.24	54.12
Conflicting Volume (Veh)	331.76			811.76	785.29	244.12	176.47			857.06	870.59	174.12
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	331.76			811.76	785.29	244.12	176.47			857.06	870.59	174.12
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1222.05			298.81	326.77	794.68	1411.90			279.63	291.63	864.11
Capacity	1222.05			242.23	278.51	794.68	1411.90			192.20	248.56	864.11

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	171.76	4.71	97.65	36.47	111.76	34.12	156.47	175.29	4.71	8.24	54.12
cmx, Capacity	1222.05			242.23	278.51	794.68	1411.90			192.20	248.56	864.11
V / C	0.12			0.40	0.13	0.14	0.02			0.02	0.03	0.06
d, Delay	8.35			35.17	33.24	10.27	7.61			24.61	20.36	10.05
LOS	A			E	D	B	A			C	C	B
dA, Approach Delay	3.81			23.57			0.71			12.34		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.23					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	176.47	134.12	111.76	365.88	67.06
Flared Storage Size						
cmx, Capacity			251.13		1411.90	557.69
V / C			0.53		0.26	0.12
Q95, 95% Queue Length			2.87		1.04	0.41
d, Delay			34.65		7.61	12.34
LOS			D		A	B
dA, Approach Delay	3.81		23.57		0.71	12.34
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.91	
Worst Case Delay	15.38	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	20.00	20.00	314.00	52.00	19.00	321.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	21.28	21.28	334.04	55.32	20.21	341.49

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	21.28	21.28			20.21	
Conflicting Volume (Veh)	743.62	361.70			389.36	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	743.62	361.70			389.36	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	380.81	687.48			1180.16	
Capacity	372.65	687.48			1180.16	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	21.28	21.28	334.04	55.32	20.21	341.49
cmx, Capacity	372.65	687.48			1180.16	
V / C	0.06	0.03			0.02	
d, Delay	15.38	10.95			8.10	
LOS	C	B			A	
dA, Approach Delay	13.17		0.00		0.45	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	42.55	389.36	361.70
Flared Storage Size			
cmx, Capacity	483.32		1180.16
V / C	0.09		0.31
Q95, 95% Queue Length	0.29		1.31
d, Delay	13.17		8.10
LOS	B		A
dA, Approach Delay	13.17	0.00	0.45
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.65	
Worst Case Delay	25.05	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	33.00	452.00	5.00	25.00	694.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	33.67	461.22	5.10	25.51	708.16	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	33.67		5.10	25.51		
Conflicting Volume (Veh)	709.18		1237.24	708.67		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	709.18		1237.24	708.67		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	885.18		196.02	430.95		
Capacity	885.18		188.57	430.95		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	33.67	461.22	5.10	25.51	708.16	1.02
cmx, Capacity	885.18		188.57	430.95		
V / C	0.04		0.03	0.06		
d, Delay	9.23		25.05	14.31		
LOS	A		D	B		
dA, Approach Delay	0.63		16.10		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	33.67	461.22	30.61	709.18
Flared Storage Size				
cmx, Capacity			354.92	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			16.10	
LOS			C	
dA, Approach Delay	0.63		16.10	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.65								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	31.00	39.00	7.00	5.00	38.00	9.00	6.00	47.00	3.00	10.00	57.00	15.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	32.98	41.49	7.45	5.32	40.43	9.57	6.38	50.00	3.19	10.64	60.64	15.96
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	81.91	55.32	59.57	87.23
Left Turn Flow Rate	32.98	5.32	6.38	10.64
Right Turn Flow Rate	7.45	9.57	3.19	15.96
PLT, Proportion LT	0.40	0.10	0.11	0.12
PRT, Proportion RT	0.09	0.17	0.05	0.18
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.03	-0.08	-0.01	-0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	81.91	55.32	59.57	87.23
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.05	0.05	0.08
hd, iteration 1	4.22	4.12	4.20	4.10
Difference, iteration 1	1.02	0.92	1.00	0.90
hd, iteration 2	4.30	4.22	4.29	4.19
Difference, iteration 2	0.08	0.10	0.09	0.09
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.30	4.22	4.29	4.19
x final, Degree of Utilization	0.10	0.06	0.07	0.10

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	81.91	55.32	59.57	87.23
hd, Departure Headway	4.30	4.22	4.29	4.19
x, Degree of Utilization	0.10	0.06	0.07	0.10
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.30	2.22	2.29	2.19
Capacity	836.67	852.69	839.74	859.05
Delay	7.77	7.51	7.61	7.66
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.77	7.51	7.61	7.66
Approach LOS	A	A	A	A
Intersection Delay	7.65			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				12.81								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	38.00	22.00	46.00	198.00	1.00	72.00	118.00	20.00	20.00	193.00	164.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	41.76	24.18	50.55	217.58	1.10	79.12	129.67	21.98	21.98	212.09	180.22
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	269.23	79.12	151.65	414.29
Left Turn Flow Rate	0.00	50.55	79.12	0.00	21.98
Right Turn Flow Rate	24.18	1.10	0.00	21.98	180.22
PLT, Proportion LT	0.00	0.19	1.00	0.00	0.05
PRT, Proportion RT	0.37	0.00	0.00	0.14	0.44
PHV, Proportion HV	3.10	2.80	1.00	1.14	0.95
hLT,adj, Headway adjustment	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.17	0.08	0.52	-0.08	-0.23

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	269.23	79.12	151.65	414.29
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.06	0.24	0.07	0.13	0.37
hd, iteration 1	5.19	4.81	6.20	5.60	4.36
Difference, iteration 1	1.99	1.61	3.00	2.40	1.16
hd, iteration 2	5.86	5.31	6.70	6.09	4.84
Difference, iteration 2	0.67	0.51	0.49	0.49	0.48
hd, iteration 3	6.08	5.46	6.88	6.27	4.96
Difference, iteration 3	0.22	0.14	0.18	0.18	0.12
hd, iteration 4	6.15	5.50	6.92	6.31	5.00
Difference, iteration 4	0.06	0.04	0.05	0.05	0.04
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headway	6.15	5.50	6.92	6.31	5.00
x final, Degree of Utilization	0.11	0.41	0.15	0.27	0.58

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	65.93	269.23	79.12	151.65	414.29
hd, Departure Headway	6.15	5.50	6.92	6.31	5.00
x, Degree of Utilization	0.11	0.41	0.15	0.27	0.58
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.15	3.50	4.62	4.01	3.00
Capacity	585.55	654.15	519.39	569.27	719.34
Delay	9.92	12.28	10.86	11.29	14.55
LOS	A	B	B	B	B
Q95, 95% Queue Length					
Approach Delay	9.92	12.28	11.14		14.55
Approach LOS	A	B	B		B
Intersection Delay	12.81				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.47	
Worst Case Delay	28.46	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	149.00	114.00	141.00	94.00	291.00	204.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	152.04	116.33	143.88	95.92	296.94	208.16

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	152.04		143.88	95.92		
Conflicting Volume (Veh)	505.10		821.43	401.02		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	505.10		821.43	401.02		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1069.93		346.71	651.27		
Capacity	1069.93		293.82	651.27		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	152.04	116.33	143.88	95.92	296.94	208.16
cmx, Capacity	1069.93		293.82	651.27		
V / C	0.14		0.49	0.15		
d, Delay	8.92		28.46	11.48		
LOS	A		D	B		
dA, Approach Delay	5.05		21.67		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.36				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	268.37	143.88	95.92	505.10
Flared Storage Size				
cmx, Capacity	1069.93			
V / C	0.25			
Q95, 95% Queue Length	0.99			
d, Delay	8.92			
LOS	A			
dA, Approach Delay	5.05	21.67		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.1	
Worst Case Delay	15.28	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	30.00	22.00	282.00	32.00	9.00	332.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	33.71	24.72	316.85	35.96	10.11	373.03

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	33.71	24.72			10.11	
Conflicting Volume (Veh)	728.09	334.83			352.81	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	728.09	334.83			352.81	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	393.34	711.70			1217.18	
Capacity	389.16	711.70			1217.18	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	33.71	24.72	316.85	35.96	10.11	373.03
cmx, Capacity	389.16	711.70			1217.18	
V / C	0.09	0.03			0.01	
d, Delay	15.28	11.09			7.98	
LOS	C	B			A	
dA, Approach Delay	13.51		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	58.43	352.81	383.15
Flared Storage Size			
cmx, Capacity	481.47		1217.18
V / C	0.12		0.31
Q95, 95% Queue Length	0.41		1.36
d, Delay	13.51		7.98
LOS	B		A
dA, Approach Delay	13.51	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.63	
Average LOS		A	
V/C		0.55	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	37	192	158	7	261	18	48	108	15	113	416	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	10	52	42	2	70	5	13	29	4	30	112	1
Adjusted Volume	40	206	170	8	281	19	52	116	16	122	447	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57493	57494	57491	57492	57497	57498	57495	57496
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	246	170	8	300	168	16	122	453
PLT, Proportion Left Turns	0.16	0.00	1.00	0.00	0.31	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	57493	57494	57491	57492	57497	57498	57495	57496
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.939	1.000	0.460	1.000	0.859	1.000	0.609	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1657	1485	827	1748	1530	1530	1015	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	57493	57494	57491	57492	57497	57498	57495	57496
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	246.24	169.89	7.53	300	167.74	16.13	121.51	452.69
s, Saturation Flow Rate	1657	1485	827	1748	1530	1530	1015	1762
c, Capacity	497	446	359	757	459	459	440	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.5	0.38	0.02	0.4	0.37	0.04	0.28	0.59
d1, Uniform Delay	8.63	8.30	4.86	5.81	8.25	7.43	5.47	6.48
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	3.50	2.47	0.11	1.55	2.24	0.14	1.55	3.37
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.13	10.77	4.97	7.37	10.49	7.57	7.03	9.86
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	11.58		7.31		10.24		9.26	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.63							
Intersection LOS	A							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57493	57494	57491	57492	57497	57498	57495	57496
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.69	1.12	0.04	1.71	1.10	0.10	0.65	2.88
Q2, Second-term Queued	0.32	0.18	0.01	0.28	0.18	0.01	0.11	0.63
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.31	0.31	0.30	0.44
Q, Average Back of Queue	2.00	1.30	0.04	1.99	1.27	0.11	0.77	3.51
fB%, % Factor	1.83	1.89	2.00	1.84	1.89	1.99	1.93	1.75
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90
% Back of Queue	3.67	2.46	0.08	3.66	2.41	0.21	1.48	6.13

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57493	57494	57491	57492	57497	57498	57495	57496
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.15	0.11	0.01	0.17	0.11	0.01	0.12	0.26
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57493	57494	57491	57492	57497	57498	57495	57496
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLt, Adj. LT Flow Rate	39.78		7.53		51.61		121.51	
PLT, Proportion LT in Lane	0.16		1.00		0.31		1.00	
PLTo, Proportion LT in Op	0.28		0.00		0.10		0.00	
LT Volume per Cycle	0.33		0.06		0.43		1.01	
Vo, Opposing Flow	167.74		452.69		246.24		300.00	
Volc, Adjusted Opposing F	1.47		3.77		2.16		2.50	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.86		0.00		1.43		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.71		0.00		0.00	
gu	7.14		11.29		7.57		13.00	
PL	0.16		1.00		0.31		1.00	
de facto caused by PL >=								
EL1	1.52		1.89		1.66		1.64	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.94		0.46		0.86		0.61	
fLT, Left Turn Adjustment	0.94	1.00	0.46	1.00	0.86	1.00	0.61	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	23.9
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	183.00	181.00	51.00	12.00	13.00	33.00	230.00	27.00	352.00	45.00	46.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	192.63	190.53	53.68	12.63	13.68	34.74	242.11	28.42	370.53	47.37	48.42
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	206.32	190.53	66.32	13.68	305.26	417.89	48.42
Left Turn Flow Rate	13.68	0.00	53.68	0.00	34.74	370.53	0.00
Right Turn Flow Rate	0.00	190.53	0.00	13.68	28.42	0.00	48.42
PLT, Proportion LT	0.07	0.00	0.81	0.00	0.11	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.09	0.00	1.00
PHV, Proportion HV	0.00	3.00	0.57	0.00	0.79	1.77	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.03	-0.65	0.41	-0.70	-0.02	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	206.32	190.53	66.32	13.68	305.26	417.89	48.42
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.18	0.17	0.06	0.01	0.27	0.37	0.04
hd, iteration 1	5.63	4.95	6.39	5.27	5.66	6.14	4.96
Difference, iteration 1	2.43	1.75	3.19	2.07	2.46	2.94	1.76
hd, iteration 2	6.67	5.98	7.60	6.46	6.64	6.91	5.72
Difference, iteration 2	1.04	1.04	1.20	1.19	0.98	0.77	0.76
hd, iteration 3	7.01	6.32	8.08	6.93	6.97	7.23	6.03
Difference, iteration 3	0.34	0.34	0.48	0.47	0.32	0.32	0.31
hd, iteration 4	7.15	6.46	8.25	7.10	7.09	7.33	6.14
Difference, iteration 4	0.13	0.13	0.17	0.17	0.13	0.10	0.10
hd, iteration 5	7.20	6.50	8.31	7.16	7.14	7.37	6.17
Difference, iteration 5	0.05	0.05	0.06	0.06	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.20	6.50	8.31	7.16	7.14	7.37	6.17
x final, Degree of Utilization	0.41	0.34	0.15	0.03	0.61	0.86	0.08

Capacity and Level of Service

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	206.32	190.53	66.32	13.68	305.26	417.89	48.42
hd, Departure Headway	7.20	6.50	8.31	7.16	7.14	7.37	6.17
x, Degree of Utilization	0.41	0.34	0.15	0.03	0.61	0.86	0.08
m, Move Up Time	2.30	2.30	2.30	2.30	2.00	2.30	2.30
ts, Service Time	4.90	4.20	6.01	4.86	5.14	5.07	3.87
Capacity	500.07	553.34	432.61	501.99	503.80	488.09	582.52
Delay	14.85	12.58	12.50	10.06	20.49	39.95	9.43
LOS	B	B	B	B	C	E	A
Q95, 95% Queue Length							
Approach Delay	13.76		12.09		20.49	36.79	
Approach LOS	B		B		C	E	
Intersection Delay	23.9						
Intersection LOS	C						

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.46								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	143	259	21	358	326	67	36	236	416	37	293	27
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	37	67	5	92	84	17	9	61	107	10	76	7
Adjusted Volume	147	267	22	369	336	69	37	243	429	38	302	28

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	57501	57502	57499	57500	57505	57506	57507	57503	57504
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	147	289	369	405	280	114	315	38	330
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.08

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	57501	57502	57499	57500	57505	57506	57507	57503	57504
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.987
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1737	1753	1515	1515	1710	1777

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	57501	57502	57499	57500	57505	57506	57507	57503	57504
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	147.42	288.66	369.07	405.15	280.41	114.36	314.5	38.14	329.9
s, Saturation Flow Rate	1693	1695	1676	1737	1753	1515	1515	1710	1777
c, Capacity	282	283	373	714	331	337	286	57	395
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.52	1.02	0.99	0.57	0.85	0.34	1.1	0.67	0.84
d1, Uniform Delay	34.23	37.50	34.91	20.35	35.24	7.85	26.77	43.01	33.43
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.77	59.26	44.36	3.25	22.62	2.73	82.38	48.25	18.50
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	41.00	96.76	79.26	23.61	57.87	10.58	109.14	91.26	51.93
LOS	D	F	E	C	E	B	F	F	D
dA, Approach Delay	77.91		50.14		72.98			56.00	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.46								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	57501	57502	57499	57500	57505	57506	57507	57503	57504
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.36	7.22	9.20	7.78	6.77	2.41	7.86	0.94	7.88
Q2, Second-term Queued	0.50	4.53	4.93	1.15	2.17	0.27	6.45	0.28	2.35
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.86	11.74	14.13	8.93	8.94	2.68	14.31	1.22	10.22
fB%, % Factor	1.73	1.55	1.53	1.58	1.58	1.79	1.53	1.89	1.56
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.69	18.18	21.61	14.14	14.16	4.80	21.87	2.31	16.00

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	57501	57502	57499	57500	57505	57506	57507	57503	57504
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
I1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.09	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	57501	57502	57499	57500	57505	57506	57507	57503	57504
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Re									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe									
Control Type				TWSC					
Method				HCM 2000					
dI, Average Delay				23.35					
Worst Case Delay				64.43					
Worst Case LOS				F					

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	237.00	45.00	138.00	296.00	81.00	173.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	263.33	50.00	153.33	328.89	90.00	192.22

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			263.33	50.00	153.33		90.00	192.22
Conflicting Volume (Veh)	328.89			447.78	306.67	0.00		635.56	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	328.89			447.78	306.67	0.00		635.56	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1242.00			519.43	610.47	1629.70		397.00	1087.94
Capacity	1242.00			321.33	553.03	1629.70		359.65	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	263.33	50.00	153.33	328.89	90.00	192.22
cmx, Capacity	1242.00			321.33	553.03	1629.70		359.65	1087.94
V / C	0.00			0.82	0.09	0.09		0.25	0.18
d, Delay	7.90			64.43	59.74	7.44		19.00	12.30
LOS	A			F	F	A		C	B
dA, Approach Delay	2.63			63.68		2.37		14.44	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	313.33	153.33	328.89	282.22
Flared Storage Size					
cmx, Capacity	1242.00	344.35			661.06
V / C	0.00	0.91			0.43
Q95, 95% Queue Length	0.00	9.07			2.14
d, Delay	2.63	63.68			14.44
LOS	A	F			B
dA, Approach Delay	2.63	63.68	2.37		14.44
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				8.02								
Average LOS				A								
V/C				0.52								
Loss Time				9								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	341	42	14	37	72	80	517	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	90	11	4	10	19	21	136	3
Adjusted Volume	75	33	42	56	359	44	15	39	76	84	544	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57510	57511	57508	57509	57514	57515	57512	57513
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	403	54	76	84	558
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.27	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.11	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57510	57511	57508	57509	57514	57515	57512	57513
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.813	1.000	0.429	1.000	0.900	1.000	0.554	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1463	1530	758	1702	1620	1530	997	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57510	57511	57508	57509	57514	57515	57512	57513
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	403.16	53.68	75.79	84.21	557.89
s, Saturation Flow Rate	1463	1530	758	1702	1620	1530	997	1758
c, Capacity	244	255	442	993	270	255	582	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.41	0.2	0.3	0.14	0.54
d1, Uniform Delay	13.49	12.85	3.37	4.09	12.93	13.15	3.41	4.58
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	5.68	1.39	0.59	1.23	1.65	2.96	0.52	2.07
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.17	14.24	3.96	5.33	14.58	16.11	3.94	6.65
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.78		5.16		15.47		6.29	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.02							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57510	57511	57508	57509	57514	57515	57512	57513
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.20	0.46	0.66	0.38	3.40
Q2, Second-term Queued	0.17	0.05	0.05	0.41	0.06	0.10	0.07	0.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.34	0.60	0.24	0.23	0.41	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.61	0.52	0.76	0.45	4.13
fB%, % Factor	1.90	1.96	1.97	1.80	1.95	1.93	1.96	1.72
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	4.69	1.02	1.47	0.89	7.09

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57510	57511	57508	57509	57514	57515	57512	57513
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.07	0.24	0.03	0.05	0.08	0.32
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57510	57511	57508	57509	57514	57515	57512	57513
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		14.74		84.21	
PLT, Proportion LT in Lane	0.70		1.00		0.27		1.00	
PLTo, Proportion LT in Op	0.11		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.15		0.84	
Vo, Opposing Flow	53.68		557.89		107.37		403.16	
Volc, Adjusted Opposing F	0.56		5.58		1.13		4.03	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.14		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.24		0.00		0.00	
gu	6.00		18.76		5.86		21.00	
PL	0.70		1.00		0.27		1.00	
de facto caused by PL >=								
EL1	1.33		2.08		1.42		1.80	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.43		0.90		0.55	
fLT, Left Turn Adjustment	0.81	1.00	0.43	1.00	0.90	1.00	0.55	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.77								
Worst Case Delay				22.9								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	30.00	240.00	2.00	13.00	69.00	49.00	8.00	427.00	2.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	30.93	247.42	2.06	13.40	71.13	50.52	8.25	440.21	2.06

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	30.93			13.40	71.13	50.52	8.25		
Conflicting Volume (Veh)	828.87	769.07	248.45	442.27			780.93	769.07	441.24	249.48		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	828.87	769.07	248.45	442.27			780.93	769.07	441.24	249.48		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	292.14	324.56	795.20	1091.70			305.08	333.89	620.35	1327.91		
Capacity	215.67	311.15	795.20	1091.70			279.15	320.09	620.35	1327.91		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	30.93	247.42	2.06	13.40	71.13	50.52	8.25	440.21	2.06
cmx, Capacity	215.67	311.15	795.20	1091.70			279.15	320.09	620.35	1327.91		
V / C	0.00	0.06	0.01	0.03			0.05	0.22	0.08	0.01		
d, Delay	22.52	17.40	10.35	8.39			22.90	21.25	15.80	7.73		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	15.97			0.93			19.37			0.14		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.06		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	280.41	135.05	450.52
Flared Storage Size				
cmx, Capacity	354.97	1091.70	384.03	1327.91
V / C	0.08	0.26	0.35	0.34
Q95, 95% Queue Length	0.24	1.03	1.55	1.52
d, Delay	15.97	8.39	19.37	7.73
LOS	C	A	C	A
dA, Approach Delay	15.97	0.93	19.37	0.14
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.93								
Worst Case Delay				30.93								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	26.00	430.00	9.00	10.00	0.00	10.00	10.00	601.00	13.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	28.57	472.53	9.89	10.99	0.00	10.99	10.99	660.44	14.29

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	28.57			10.99	0.00	10.99	10.99		
Conflicting Volume (Veh)	1222.53	1231.32	477.47	674.73			1223.63	1229.12	667.58	482.42		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1222.53	1231.32	477.47	674.73			1223.63	1229.12	667.58	482.42		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	157.74	178.83	591.89	897.94			157.46	179.37	454.95	1039.85		
Capacity	148.98	171.31	591.89	897.94			148.79	171.83	454.95	1039.85		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	28.57	472.53	9.89	10.99	0.00	10.99	10.99	660.44	14.29
cmx, Capacity	148.98	171.31	591.89	897.94			148.79	171.83	454.95	1039.85		
V / C	0.03	0.02	0.01	0.03			0.07	0.00	0.02	0.01		
d, Delay	30.14	26.99	12.06	9.14			30.93	27.69	14.65	8.50		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	21.82			0.51			22.79			0.14		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	28.57	482.42	21.98	10.99	674.73
Flared Storage Size						
cmx, Capacity	227.24			224.24		
V / C	0.06			0.10		
Q95, 95% Queue Length	0.18			0.32		
d, Delay	21.82			22.79		
LOS	C			C		
dA, Approach Delay	21.82	0.51		22.79	0.14	
Approach LOS	C			C		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.76	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	94.00	124.00	36.00	179.00	66.00	19.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	111.90	147.62	42.86	213.10	78.57	22.62
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	291.67	22.62
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	147.62	42.86	78.57	22.62
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.57	1.00	0.27	1.00
PHV, Proportion HV	2.43	0.00	8.89	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.30	-0.60	-0.01	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	291.67	22.62
hd initial	3.20	3.20	3.20	3.20
x initial	0.23	0.04	0.26	0.02
hd, iteration 1	3.85	3.75	4.16	3.80
Difference, iteration 1	0.65	0.55	0.96	0.60
hd, iteration 2	3.93	3.84	4.21	3.95
Difference, iteration 2	0.07	0.09	0.05	0.15
hd, iteration 3	3.93	3.85	4.22	3.96
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	3.93	3.85	4.22	3.96
x final, Degree of Utilization	0.28	0.05	0.34	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	291.67	22.62
hd, Departure Headway	3.93	3.85	4.22	3.96
x, Degree of Utilization	0.28	0.05	0.34	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	1.93	1.85	2.22	1.96
Capacity	914.92	934.84	853.07	908.37
Delay	8.48	7.03	9.39	7.06
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.48	7.03	9.39	7.06
Approach LOS	A	A	A	A
Intersection Delay	8.76			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.13	
Worst Case Delay	10.13	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	8.00	45.00	31.00	2.00	63.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	10.96	61.64	42.47	2.74	86.30

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			61.64		2.74	86.30
Conflicting Volume (Veh)			49.32		209.59	43.84
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			49.32		209.59	43.84
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1570.42		783.27	1032.04
Capacity			1570.42		751.74	1032.04

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	10.96	61.64	42.47	2.74	86.30
cmx, Capacity			1570.42		751.74	1032.04
V / C			0.04		0.00	0.08
d, Delay			7.39		10.13	8.83
LOS			A		B	A
dA, Approach Delay	0.00		4.37		8.87	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.30			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	49.32	104.11	89.04
Flared Storage Size			
cmx, Capacity		1570.42	1020.34
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.29
d, Delay		7.39	8.87
LOS		A	A
dA, Approach Delay	0.00	4.37	8.87
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.45	
Worst Case Delay	19.38	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	11.00	462.00	15.00	2.00	414.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	12.22	513.33	16.67	2.22	460.00	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	12.22		16.67	2.22		
Conflicting Volume (Veh)	466.67		1001.11	463.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	466.67		1001.11	463.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1044.34		271.42	602.84		
Capacity	1044.34		266.87	602.84		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjusted	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjusted	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	12.22	513.33	16.67	2.22	460.00	6.67
cmx, Capacity	1044.34		266.87	602.84		
V / C	0.01		0.06	0.00		
d, Delay	8.49		19.38	11.86		
LOS	A		C	B		
dA, Approach Delay	0.20		18.50		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.14				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	525.56	18.89	466.67
Flared Storage Size			
cmx, Capacity	1044.34	285.59	
V / C	0.50	0.07	
Q95, 95% Queue Length	2.91	0.21	
d, Delay	8.49	18.50	
LOS	A	C	
dA, Approach Delay	0.20	18.50	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.76	
Worst Case Delay	20.74	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	21.00	456.00	22.00	6.00	416.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	23.60	512.36	24.72	6.74	467.42	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	23.60		24.72	6.74		
Conflicting Volume (Veh)	471.91		1029.21	469.66		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	471.91		1029.21	469.66		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1100.49		261.16	597.92		
Capacity	1100.49		253.15	597.92		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	23.60	512.36	24.72	6.74	467.42	4.49
cmx, Capacity	1100.49		253.15	597.92		
V / C	0.02		0.10	0.01		
d, Delay	8.34		20.74	12.54		
LOS	A		C	B		
dA, Approach Delay	0.37		18.98		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.26				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	535.96	31.46	471.91
Flared Storage Size			
cmx, Capacity	1100.49	288.84	
V / C	0.49	0.11	
Q95, 95% Queue Length	2.74	0.36	
d, Delay	8.34	18.98	
LOS	A	C	
dA, Approach Delay	0.37	18.98	0.00
Approach LOS		C	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.29	
Worst Case Delay	9.84	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	109.00	15.00	12.00	54.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	123.86	17.05	13.64	61.36

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			13.64	
Conflicting Volume (Veh)	221.02	132.39			140.91	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	221.02	132.39			140.91	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	771.64	870.97			1406.07	
Capacity	763.87	870.97			1406.07	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	123.86	17.05	13.64	61.36
cmx, Capacity	763.87	870.97			1406.07	
V / C	0.03	0.00			0.01	
d, Delay	9.84	9.26			7.59	
LOS	A	A			A	
dA, Approach Delay	9.84		0.00		1.38	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.08	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	140.91	75.00
Flared Storage Size			
cmx, Capacity	763.87		1406.07
V / C	0.03		0.05
Q95, 95% Queue Length	0.08		0.17
d, Delay	9.84		7.59
LOS	A		A
dA, Approach Delay	9.84	0.00	1.38
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.07	
Worst Case Delay	13.55	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	174.00	79.00	91.00	120.00	8.00	86.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	185.11	84.04	96.81	127.66	8.51	91.49

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			96.81		8.51	91.49
Conflicting Volume (Veh)			269.15		548.40	227.13
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			269.15		548.40	227.13
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1288.66		500.57	804.78
Capacity			1288.66		459.92	804.78

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	185.11	84.04	96.81	127.66	8.51	91.49
cmx, Capacity			1288.66		459.92	804.78
V / C			0.08		0.02	0.11
d, Delay			8.02		13.55	10.20
LOS			A		B	B
dA, Approach Delay	0.00		3.46		10.48	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.65			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	269.15	224.47	100.00
Flared Storage Size			
cmx, Capacity		1288.66	756.50
V / C		0.17	0.13
Q95, 95% Queue Length		0.63	0.45
d, Delay		8.02	10.48
LOS		A	B
dA, Approach Delay	0.00	3.46	10.48
Approach LOS			B

Scenario 10

Signal at Harrison St/42nd Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	61.97
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	267	72	96	321	9	68	259	65	113	470	90
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	70	19	25	84	2	18	67	17	29	122	23
Adjusted Volume	40	278	75	100	334	9	71	270	68	118	490	94

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	57524	57525	57522	57523	57528	57529	57526	57527
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	353	100	344	71	338	118	583
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.03	0.00	0.20	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57524	57525	57522	57523	57528	57529	57526	57527
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.996	1.000	0.970	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1757	1644	1729	1676	1705

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57524	57525	57522	57523	57528	57529	57526	57527
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	353.13	100	343.75	70.83	337.5	117.71	583.33
s, Saturation Flow Rate	1710	1725	1644	1757	1644	1729	1676	1705
c, Capacity	46	471	91	502	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.1	0.68	0.6	0.61	0.98	1.13
d1, Uniform Delay	27.15	18.60	26.45	17.76	25.23	16.19	25.97	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	96.79	10.44	123.54	7.39	20.86	5.07	77.80	81.83
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	29.03	149.99	25.15	46.09	21.26	103.77	101.38
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.60		53.29		25.57		101.78	
Approach LOS	D		D		C		F	
dI, Intersection Delay	61.97							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57524	57525	57522	57523	57528	57529	57526	57527
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.02	1.56	4.75	1.07	4.45	1.83	9.07
Q2, Second-term Queued	0.40	1.33	2.05	1.04	0.27	0.83	1.53	11.77
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.35	3.61	5.79	1.34	5.28	3.36	20.84
fB%, % Factor	1.91	1.64	1.74	1.66	1.88	1.67	1.76	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.41	6.29	9.60	2.51	8.84	5.89	31.43

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57524	57525	57522	57523	57528	57529	57526	57527
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.04	0.20	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57524	57525	57522	57523	57528	57529	57526	57527
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		16.37	
Average LOS		B	
V/C		0.78	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	6	1777	1	22	33	22	26	1622	11	24	26	86
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	478	0	6	9	6	7	436	3	6	7	23
Adjusted Volume	6	1911	1	24	35	24	28	1744	12	26	28	92

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57535	57536	57538	57534	57530	57531	57533	57539
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6	1911	1	83	28	1744	12	146
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.18
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.63

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57535	57536	57538	57534	57530	57531	57533	57539
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.608	0.950	1.000	1.000	0.901
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.961	1.000	1.000	0.850	0.915
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1052	1710	3327	1530	1484

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57535	57536	57538	57534	57530	57531	57533	57539
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	6.45	1910.75	1.08	82.8	27.96	1744.09	11.83	146.24
s, Saturation Flow Rate	1710	3327	1530	1052	1710	3327	1530	1484
c, Capacity	29	2440	1122	114	71	2523	1160	161
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.23	0.78	0	0.73	0.39	0.69	0.01	0.91
d1, Uniform Delay	58.24	10.02	4.27	51.78	56.02	7.36	3.53	52.92
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	17.59	2.59	0.00	33.07	15.44	1.58	0.02	50.41
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.83	12.62	4.27	84.85	71.46	8.94	3.55	103.33
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.82			84.85	9.89			103.33
Approach LOS	B			F	A			F
dI, Intersection Delay	16.37							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57535	57536	57538	57534	57530	57531	57533	57539
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.21	20.95	0.01	2.67	0.91	15.51	0.10	4.82
Q2, Second-term Queued	0.03	5.22	0.00	0.69	0.14	3.56	0.02	1.91
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.31	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.25	26.17	0.01	3.36	1.05	19.07	0.11	6.73
fB%, % Factor	1.98	1.50	2.00	1.76	1.91	1.51	1.99	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.49	39.32	0.02	5.90	1.99	28.81	0.22	10.97

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57535	57536	57538	57534	57530	57531	57533	57539
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.00	0.08	0.02	0.52	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57535	57536	57538	57534	57530	57531	57533	57539
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				25.81
PLT, Proportion LT in Lane				0.29				0.18
PLTo, Proportion LT in Op				0.18				0.29
LT Volume per Cycle				0.79				0.86
Vo, Opposing Flow				146.24				82.80
Volc, Adjusted Opposing F				4.87				2.76
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.63				5.49
gu				2.37				7.51
PL				0.29				0.18
de facto caused by PL >=								
EL1				1.47				1.37
EL2				5.66				2.72
gdif				8.44				3.54
fm				0.61				0.90
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.61	0.95	1.00	1.00	0.90

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.38								
Average LOS				D								
V/C				0.86								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	94	1681	108	116	237	149	193	1474	88	22	143	27
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	25	447	29	31	63	40	51	392	23	6	38	7
Adjusted Volume	100	1788	115	123	252	159	205	1568	94	23	152	29

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	100	1788	115	123	252	37	122	205	1568	94	23	152	29
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.663	1.000	1.000	1.000	0.950	1.000	1.000	0.503	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1170	3427	1515	1515	1676	3327	1500	906	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	100	1788.3	114.89	123.4	252.13	36.99	121.52	205.32	1568.09	93.62	23.4	152.13	28.72
s, Saturation Flow Rate	1676	3360	1515	1170	3427	1515	1515	1676	3327	1500	906	3427	1530
c, Capacity	335	1988	896	214	628	303	278	182	1664	750	166	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.3	0.9	0.13	0.58	0.4	0.12	0.44	1.13	0.94	0.12	0.14	0.24	0.1
d1, Uniform Delay	40.84	21.39	10.83	44.74	43.19	9.18	33.36	53.50	28.37	16.00	41.08	41.88	40.78
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.27	7.02	0.30	10.77	1.91	0.82	4.95	106.20	12.09	0.34	1.77	0.91	0.73
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.10	28.41	11.12	55.51	45.10	10.01	38.30	159.70	40.46	16.34	42.85	42.79	41.51
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	28.15			43.53				52.36			42.62		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.38												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.84	27.33	1.69	3.76	3.89	1.01	3.60	6.84	25.96	1.66	0.65	2.28	0.80
Q2, Second-term Queued	0.27	8.01	0.19	0.61	0.42	0.08	0.43	5.09	8.72	0.16	0.06	0.20	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.48	0.64	0.61	0.57	0.42	1.27	1.14	0.40	0.64	0.57
Q, Average Back of Queue	3.11	35.34	1.88	4.37	4.31	1.09	4.03	11.94	34.68	1.83	0.72	2.48	0.86
fB%, % Factor	1.77	1.50	1.84	1.71	1.71	1.90	1.72	1.55	1.50	1.85	1.93	1.80	1.92
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	53.02	3.47	7.46	7.38	2.08	6.95	18.46	52.04	3.37	1.39	4.48	1.66

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.11	0.07	0.02	0.08	0.12	0.47	0.06	0.03	0.04	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	57549	57550	57552	57544	57545	57547	57548	57540	57541	57543	57553	57554	57556
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				123.40							23.40		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				4.11							0.78		
Vo, Opposing Flow				152.13							252.13		
Volc, Adjusted Opposing F				2.79							4.63		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.78							4.19		
gu				21.22							17.81		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.45							1.61		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.66							0.50		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.66	1.00	1.00	1.00	0.95	1.00	1.00	0.50	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		52.28	
Average LOS		D	
V/C		0.98	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	275	1642	21	82	216	159	48	1568	50	7	274	54
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	72	428	5	21	56	41	13	408	13	2	71	14
Adjusted Volume	286	1710	22	85	225	166	50	1633	52	7	285	56

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57573	57574	57576	57571	57567	57568	57570	57577
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	286	1710	22	476	50	1633	52	349
PLT, Proportion Left Turns	1.00	0.00	0.00	0.18	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57573	57574	57576	57571	57567	57568	57570	57577
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.729	0.950	1.000	1.000	0.945
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.948	1.000	1.000	0.850	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2254	1613	3360	1471	3040

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57573	57574	57576	57571	57567	57568	57570	57577
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	286.46	1710.42	21.88	476.04	50	1633.33	52.08	348.96
s, Saturation Flow Rate	1710	3327	1530	2254	1613	3360	1471	3040
c, Capacity	323	1869	859	517	149	1562	684	697
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.89	0.92	0.03	0.92	0.34	1.05	0.08	0.5
d1, Uniform Delay	47.38	23.72	11.70	45.20	50.99	32.10	17.80	40.27
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	27.92	8.50	0.05	24.25	5.96	35.64	0.22	2.56
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	75.31	32.22	11.75	69.45	56.95	67.74	18.02	42.84
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.12			69.45	65.94			42.84
Approach LOS	D			E	E			D
dI, Intersection Delay	52.28							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57573	57574	57576	57571	57567	57568	57570	57577
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.30	27.01	0.32	8.14	1.56	28.59	0.96	5.32
Q2, Second-term Queued	2.98	8.29	0.03	3.06	0.18	13.98	0.09	0.67
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.56	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.28	35.30	0.36	11.21	1.74	42.58	1.05	5.99
fB%, % Factor	1.54	1.50	1.97	1.55	1.85	1.50	1.91	1.65
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.95	52.96	0.70	17.40	3.23	63.87	2.00	9.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57573	57574	57576	57571	57567	57568	57570	57577
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.03	0.49	0.04	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57573	57574	57576	57571	57567	57568	57570	57577
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				85.42				7.29
PLT, Proportion LT in Lane				0.18				0.02
PLTo, Proportion LT in Op				0.02				0.18
LT Volume per Cycle				2.85				0.24
Vo, Opposing Flow				348.96				476.04
Volc, Adjusted Opposing F				6.11				8.33
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.25				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				6.49				10.92
gu				21.01				11.53
PL				0.49				0.04
de facto caused by PL >=								
EL1				1.85				2.13
EL2				22.29				0.00
gdif				0.00				0.00
fm				0.55				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.73	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.66
Worst Case Delay	12.08
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	424.00	55.00	381.00	153.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	465.93	60.44	418.68	168.13

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		502.75		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		502.75		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		568.75		
Capacity		568.75		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	465.93	60.44	418.68	168.13
cmx, Capacity		568.75		
V / C		0.11		
d, Delay		12.08		
LOS		B		
dA, Approach Delay	0.00	12.08	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	465.93	60.44	586.81
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.08	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.1	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	332	85	166	416
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	87	22	44	109
Adjusted Volume	89	118	349	89	175	438

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	57594	57593	57595	57597
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	439	175	438
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	57594	57593	57595	57597
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.391
fRT, Right Turn Adjustment	0.923	0.972	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1699	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	57594	57593	57595	57597
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	438.95	132	43
			175	
				437.89
s, Saturation Flow Rate	1627	1699	1693	697
			837	
				1748
c, Capacity	560	755	132	333
			465	
				971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	
				0.56
X, Volume / Capacity	0.37	0.58	1.00	0.13
			0.38	
				0.45
d1, Uniform Delay	22.16	18.73	10.83	
				11.86
k, Delay Calibration	0.50	0.50	0.50	
				0.50
d2, Incremental Delay	1.87	3.25	2.31	
				1.51
d3, Initial Queue Delay	0.00	0.00	0.00	
				0.00
Rp, Platoon Ratio	1.00	1.00	1.00	
				1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	
				0.56
PF, Progression Factor	1.00	1.00	1.00	
				1.00
d, Delay	24.04	21.98	13.14	
				13.37
LOS	C	C	B	
				B
dA, Approach Delay	24.04	21.98	13.31	
Approach LOS	C	C	B	
dI, Intersection Delay	18.1			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	57594	57593	57595	57597
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.22	2.45	6.49
Q2, Second-term Queued	0.44	1.26	0.40	0.91
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.67	1.12
Q, Average Back of Queue	4.34	9.48	2.85	7.40
fB%, % Factor	1.71	1.58	1.78	1.61
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	14.93	5.08	11.94

Signal Timing Information					
Approach	N	E	W		
Lane Group	57594	57593	57595		57597
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.25
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	57594	57593	57595		57597
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				438.95	
Volc, Adjusted Opposing Flow				10.97	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.63	
gu				31.37	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		7.56						
				Worst Case Delay		50.42						
				Worst Case LOS		F						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	41.00	396.00	63.00	1.00	57.00	85.00	24.00	295.00	27.00	27.00	64.00	32.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	45.05	435.16	69.23	1.10	62.64	93.41	26.37	324.18	29.67	29.67	70.33	35.16

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	45.05			1.10	62.64	93.41	26.37			29.67	70.33	35.16
Conflicting Volume (Veh)	353.85			1004.40	986.26	339.01	504.40			1029.67	966.48	469.78
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	353.85			1004.40	986.26	339.01	504.40			1029.67	966.48	469.78
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1177.66			222.26	249.64	703.28	1070.57			213.64	254.38	585.53
Capacity	1177.66			150.41	228.72	703.28	1070.57			137.16	233.06	585.53

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	45.05	435.16	69.23	1.10	62.64	93.41	26.37	324.18	29.67	29.67	70.33	35.16
cmx, Capacity	1177.66			150.41	228.72	703.28	1070.57			137.16	233.06	585.53
V / C	0.04			0.01	0.27	0.13	0.02			0.22	0.30	0.06
d, Delay	8.18			35.47	27.28	16.66	8.45			50.42	39.62	30.32
LOS	A			E	D	C	A			F	E	D
dA, Approach Delay	0.67			21.02			0.59			39.57		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.44						0.26					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	549.45	157.14	380.22	135.16
Flared Storage Size				
cmx, Capacity	1177.66	379.58	1070.57	233.79
V / C	0.47	0.41	0.36	0.58
Q95, 95% Queue Length	2.54	1.98	1.62	3.25
d, Delay	8.18	21.02	8.45	39.57
LOS	A	C	A	E
dA, Approach Delay	0.67	21.02	0.59	39.57
Approach LOS		C		E

Node 13764: Fuller & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		8.91						
				Worst Case Delay		13.35						
				Worst Case LOS		B						

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	112.00	20.00	81.00	20.00	15.00	10.00	35.00	64.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	121.74	21.74	88.04	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	121.74	21.74	88.04			10.87	38.04	69.57	5.43		
Conflicting Volume (Veh)	295.11	249.46	29.89	32.61			313.04	249.46	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	295.11	249.46	29.89	32.61			313.04	249.46	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	661.12	653.34	1036.06	1592.47			635.64	655.06	1057.68	1585.26		
Capacity	561.83	614.24	1036.06	1592.47			504.13	615.86	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	121.74	21.74	88.04	21.74	16.30	10.87	38.04	69.57	5.43	16.30	16.30
cmx, Capacity	561.83	614.24	1036.06	1592.47			504.13	615.86	1057.68	1585.26		
V / C	0.04	0.20	0.02	0.06			0.02	0.06	0.07	0.00		
d, Delay	13.35	12.80	10.42	7.39			12.93	11.64	9.20	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.56			5.16			10.32			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.42						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	165.22	126.09	118.48	38.04
Flared Storage Size				
cmx, Capacity	640.69	1592.47	794.59	1585.26
V / C	0.26	0.08	0.15	0.02
Q95, 95% Queue Length	1.02	0.26	0.52	0.07
d, Delay	12.56	7.39	10.32	7.28
LOS	B	A	B	A
dA, Approach Delay	12.56	5.16	10.32	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.53								
Worst Case Delay				34.2								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	131.00	4.00	81.00	31.00	97.00	29.00	124.00	134.00	5.00	23.00	49.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	145.88	157.65	5.88	27.06	57.65

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			95.29	36.47	114.12	34.12			5.88	27.06	57.65
Conflicting Volume (Veh)	303.53			781.18	743.53	224.71	158.82			816.47	820.00	156.47
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	303.53			781.18	743.53	224.71	158.82			816.47	820.00	156.47
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1251.67			313.31	345.40	814.72	1432.94			297.81	312.01	883.88
Capacity	1251.67			241.22	296.30	814.72	1432.94			207.15	267.66	883.88

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	154.12	4.71	95.29	36.47	114.12	34.12	145.88	157.65	5.88	27.06	57.65
cmx, Capacity	1251.67			241.22	296.30	814.72	1432.94			207.15	267.66	883.88
V / C	0.12			0.40	0.12	0.14	0.02			0.03	0.10	0.07
d, Delay	8.26			34.20	31.43	10.14	7.57			24.24	20.31	10.93
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.95			22.62			0.77			14.60		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	158.82	131.76	114.12	337.65	90.59
Flared Storage Size						
cmx, Capacity			254.31		1432.94	465.24
V / C			0.52		0.24	0.19
Q95, 95% Queue Length			2.74		0.92	0.71
d, Delay			33.44		7.57	14.60
LOS			D		A	B
dA, Approach Delay	3.95		22.62		0.77	14.60
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.23	
Worst Case Delay	15.21	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	36.00	16.00	294.00	43.00	19.00	307.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	38.30	17.02	312.77	45.74	20.21	326.60

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	38.30	17.02			20.21	
Conflicting Volume (Veh)	702.66	335.64			358.51	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	702.66	335.64			358.51	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	402.52	710.96			1211.33	
Capacity	394.21	710.96			1211.33	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	38.30	17.02	312.77	45.74	20.21	326.60
cmx, Capacity	394.21	710.96			1211.33	
V / C	0.10	0.02			0.02	
d, Delay	15.21	11.15			8.02	
LOS	C	B			A	
dA, Approach Delay	13.96		0.00		0.47	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	55.32	358.51	346.81
Flared Storage Size			
cmx, Capacity	456.83		1211.33
V / C	0.12		0.29
Q95, 95% Queue Length	0.41		1.19
d, Delay	13.96		8.02
LOS	B		A
dA, Approach Delay	13.96	0.00	0.47
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.63	
Worst Case Delay	22.87	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	407.00	5.00	23.00	664.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	415.31	5.10	23.47	677.55	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	682.65		1158.67	680.10		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	682.65		1158.67	680.10		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	905.61		218.54	447.51		
Capacity	905.61		210.91	447.51		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	415.31	5.10	23.47	677.55	5.10
cmx, Capacity	905.61		210.91	447.51		
V / C	0.03		0.02	0.05		
d, Delay	9.12		22.87	13.84		
LOS	A		C	B		
dA, Approach Delay	0.65		15.46		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	415.31	28.57	682.65
Flared Storage Size				
cmx, Capacity			372.82	
V / C			0.08	
Q95, 95% Queue Length			0.25	
d, Delay			15.46	
LOS			C	
dA, Approach Delay	0.65		15.46	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	8.22		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	53.00	9.00	5.00	103.00	12.00	6.00	45.00	5.00	10.00	117.00	19.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	24.47	56.38	9.57	5.32	109.57	12.77	6.38	47.87	5.32	10.64	124.47	20.21
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	59.57	155.32
Left Turn Flow Rate	24.47	5.32	6.38	10.64
Right Turn Flow Rate	9.57	12.77	5.32	20.21
PLT, Proportion LT	0.27	0.04	0.11	0.07
PRT, Proportion RT	0.11	0.10	0.09	0.13
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	59.57	155.32
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.11	0.05	0.14
hd, iteration 1	4.42	4.23	4.42	4.19
Difference, iteration 1	1.22	1.03	1.22	0.99
hd, iteration 2	4.59	4.36	4.60	4.32
Difference, iteration 2	0.17	0.14	0.18	0.13
hd, iteration 3	4.61	4.38	4.63	4.34
Difference, iteration 3	0.02	0.02	0.02	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.61	4.38	4.63	4.34
x final, Degree of Utilization	0.12	0.16	0.08	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	90.43	127.66	59.57	155.32
hd, Departure Headway	4.61	4.38	4.63	4.34
x, Degree of Utilization	0.12	0.16	0.08	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.61	2.38	2.63	2.34
Capacity	780.54	820.56	777.78	828.47
Delay	8.21	8.19	8.01	8.34
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.21	8.19	8.01	8.34
Approach LOS	A	A	A	A
Intersection Delay	8.22			
Intersection LOS	A			

Node 14275: 37th & Monroe					
Control Type		AWSC			
Method		HCM 2000			
Average Delay		14.97			
Average LOS		B			

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	25.00	22.00	55.00	167.00	1.00	70.00	126.00	181.00	16.00	191.00	151.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	27.47	24.18	60.44	183.52	1.10	76.92	138.46	198.90	17.58	209.89	165.93
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	51.65	245.05	76.92	337.36	393.41
Left Turn Flow Rate	0.00	60.44	76.92	0.00	17.58
Right Turn Flow Rate	24.18	1.10	0.00	198.90	165.93
PLT, Proportion LT	0.00	0.25	1.00	0.00	0.04
PRT, Proportion RT	0.47	0.00	0.00	0.59	0.42
PHV, Proportion HV	3.40	2.74	1.00	1.59	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.22	0.09	0.52	-0.39	-0.23

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	51.65	245.05	76.92	337.36	393.41
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.05	0.22	0.07	0.30	0.35
hd, iteration 1	5.23	5.08	6.12	5.21	4.62
Difference, iteration 1	2.03	1.88	2.92	2.01	1.42
hd, iteration 2	6.08	5.74	6.66	5.74	5.23
Difference, iteration 2	0.85	0.66	0.54	0.53	0.61
hd, iteration 3	6.39	5.95	6.86	5.95	5.41
Difference, iteration 3	0.31	0.21	0.21	0.21	0.17
hd, iteration 4	6.49	6.02	6.93	6.01	5.47
Difference, iteration 4	0.10	0.07	0.06	0.06	0.06
hd, iteration 5	6.53	6.05	6.95	6.03	5.49
Difference, iteration 5	0.03	0.02	0.02	0.02	0.02
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.53	6.05	6.95	6.03	5.49
x final, Degree of Utilizatio	0.09	0.41	0.15	0.57	0.60

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	51.65	245.05	76.92	337.36	393.41
hd, Departure Headway	6.53	6.05	6.95	6.03	5.49
x, Degree of Utilization	0.09	0.41	0.15	0.57	0.60
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.53	4.05	4.65	3.73	3.49
Capacity	550.98	595.41	517.58	596.31	655.42
Delay	10.20	13.21	10.86	16.28	16.38
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	10.20	13.21	15.27		16.38
Approach LOS	B	B	C		C
Intersection Delay	14.97				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.85	
Worst Case Delay	25.01	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	132.00	110.00	135.00	93.00	303.00	186.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	134.69	112.24	137.76	94.90	309.18	189.80

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	134.69		137.76	94.90		
Conflicting Volume (Veh)	498.98		785.71	404.08		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	498.98		785.71	404.08		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1075.50		363.89	648.70		
Capacity	1075.50		315.09	648.70		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	134.69	112.24	137.76	94.90	309.18	189.80
cmx, Capacity	1075.50		315.09	648.70		
V / C	0.13		0.44	0.15		
d, Delay	8.83		25.01	11.50		
LOS	A		D	B		
dA, Approach Delay	4.81		19.50		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.18				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	246.94	137.76	94.90	498.98
Flared Storage Size				
cmx, Capacity	1075.50			
V / C	0.23			
Q95, 95% Queue Length	0.89			
d, Delay	8.83			
LOS	A			
dA, Approach Delay	4.81	19.50		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.47	
Worst Case Delay	14.79	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	262.00	31.00	8.00	298.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	294.38	34.83	8.99	334.83

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			8.99	
Conflicting Volume (Veh)	664.61	311.80			329.21	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	664.61	311.80			329.21	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	428.44	733.10			1241.66	
Capacity	424.57	733.10			1241.66	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	294.38	34.83	8.99	334.83
cmx, Capacity	424.57	733.10			1241.66	
V / C	0.12	0.03			0.01	
d, Delay	14.79	11.22			7.92	
LOS	B	B			A	
dA, Approach Delay	13.62		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	329.21	343.82
Flared Storage Size			
cmx, Capacity	492.65		1241.66
V / C	0.15		0.28
Q95, 95% Queue Length	0.54		1.14
d, Delay	13.62		7.92
LOS	B		A
dA, Approach Delay	13.62	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	10.46	
Average LOS	B	
V/C	0.63	
Loss Time	8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	75	206	156	51	250	18	51	108	20	113	435	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	20	55	42	14	67	5	14	29	5	30	117	1
Adjusted Volume	81	222	168	55	269	19	55	116	22	122	468	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57624	57625	57622	57623	57628	57629	57626	57627
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	302	168	55	288	171	22	122	473
PLT, Proportion Left Turns	0.27	0.00	1.00	0.00	0.32	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.07	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57624	57625	57622	57623	57628	57629	57626	57627
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.886	1.000	0.437	1.000	0.832	1.000	0.616	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1563	1485	787	1747	1484	1530	1026	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57624	57625	57622	57623	57628	57629	57626	57627
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	302.15	167.74	54.84	288.17	170.97	21.51	121.51	473.12
s, Saturation Flow Rate	1563	1485	787	1747	1484	1530	1026	1762
c, Capacity	469	446	341	757	445	459	445	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.64	0.38	0.16	0.38	0.38	0.05	0.27	0.62
d1, Uniform Delay	9.11	8.29	5.18	5.77	8.31	7.45	5.46	6.59
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.67	2.42	1.01	1.45	2.50	0.19	1.51	3.76
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	15.78	10.70	6.19	7.22	10.81	7.65	6.98	10.35
LOS	B	B	A	A	B	A	A	B
dA, Approach Delay	13.97		7.06		10.45		9.66	
Approach LOS	B		A		B		A	
dI, Intersection Delay	10.46							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57624	57625	57622	57623	57628	57629	57626	57627
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.18	1.10	0.28	1.63	1.13	0.13	0.65	3.05
Q2, Second-term Queued	0.55	0.18	0.05	0.27	0.19	0.02	0.11	0.70
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.31	0.30	0.25	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.73	1.28	0.33	1.90	1.31	0.14	0.76	3.76
fB%, % Factor	1.79	1.89	1.97	1.84	1.88	1.99	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.89	2.42	0.64	3.49	2.48	0.28	1.47	6.52

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57624	57625	57622	57623	57628	57629	57626	57627
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.19	0.11	0.07	0.16	0.12	0.01	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57624	57625	57622	57623	57628	57629	57626	57627
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	80.65		54.84		54.84		121.51	
PLT, Proportion LT in Lane	0.27		1.00		0.32		1.00	
PLTo, Proportion LT in Op	0.28		0.00		0.17		0.00	
LT Volume per Cycle	0.67		0.46		0.46		1.01	
Vo, Opposing Flow	170.97		473.12		302.15		288.17	
Volc, Adjusted Opposing F	1.50		3.94		2.64		2.40	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.61		0.00		1.32		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		2.06		0.50		0.00	
gu	8.39		10.94		7.68		13.00	
PL	0.27		1.00		0.32		1.00	
de facto caused by PL >=								
EL1	1.52		1.92		1.76		1.62	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.89		0.44		0.83		0.62	
fLT, Left Turn Adjustment	0.89	1.00	0.44	1.00	0.83	1.00	0.62	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	15.5
Average LOS	B
V/C	0.32
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	116	184	32	31	10	30	245	24	444	61	24
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	31	48	8	8	3	8	64	6	117	16	6
Adjusted Volume	14	122	194	34	33	11	32	258	25	467	64	25

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	57633	57634	57635	57630	57631	57632	57639	57636	57638
Lanes	LT	R	R	L	L	RT	LTR	L	RT
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	136	145	48	19	15	43	315	467	89
PLT, Proportion Left Turns	0.10	0.00	0.00	1.00	1.00	0.00	0.10	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	0.24	0.08	0.00	0.28

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	57633	57634	57635	57630	57631	57632	57639	57636		57638
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.961	1.000	1.000	0.950	0.738	1.000	0.969	0.950	0.769	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.963	0.989	1.000		0.958
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1730	1485	1485	1710	1328	1684	1708	1676	1358	1724

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	57633	57634	57635	57630	57631	57632	57639	57636	57638	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	135.79	145.26	48.42	18.53	15.16	43.16	314.74	335	132	89.47
								467		
s, Saturation Flow Rate	1730	1485	1485	1710	1328	1684	1708	1676	1358	1724
								1481		
c, Capacity	548	470	248	114	376	477	541	335	430	661
								765		
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
X, Volume / Capacity	0.25	0.31	0.2	0.16	0.04	0.09	0.58	1.00	0.31	0.14
								0.61		
d1, Uniform Delay	15.20	11.65	5.38	14.53	7.01	15.81	17.17	9.72		12.03
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.08	1.70	1.76	3.04	0.20	0.37	4.52	3.62		0.43
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
d, Delay	16.28	13.35	7.14	17.57	7.21	16.19	21.70	13.33		12.46
LOS	B	B	A	B	A	B	C	B		B
dA, Approach Delay	13.64			14.75			21.70	13.19		
Approach LOS	B			B			C	B		
dI, Intersection Delay	15.5									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.56	0.51	0.32	0.19	0.43	0.51	0.56	0.71	0.64
Q, Average Back of Queue	1.86	2.06	0.77	0.33	0.20	0.58	5.15	6.59	1.07
fB%, % Factor	1.84	1.83	1.93	1.97	1.98	1.95	1.68	1.63	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	3.44	3.77	1.49	0.65	0.40	1.13	8.65	10.76	2.04

Signal Timing Information

Approach	N			E			S	W		
Lane Group	57633	57634	57635	57630	57631	57632	57639	57636		57638
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.08	0.10	0.03	0.01	0.01	0.03	0.18	0.20	0.10	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	57633	57634	57635	57630	57631	57632	57639	57636		57638
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				33.68		31.58		467.37	
PLT, Proportion LT in Lane	0.10				1.00		0.10		1.00	
PLTo, Proportion LT in Opposing Flow	0.10				0.00		0.04		0.00	
LT Volume per Cycle	0.23				0.56		0.53		7.79	
Vo, Opposing Flow	314.74				89.47		135.79		43.16	
Volc, Adjusted Opposing Flow	5.25				1.49		2.38		0.72	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		5.70		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	6.67				0.00		0.00		0.00	
gu	10.47				17.00		13.30		19.00	
PL	0.10				1.00		0.10		1.00	
de facto caused by PL >= 0.10										
EL1	1.76				1.36		1.46		1.30	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.96				0.74		0.97		0.77	
fLT, Left Turn Adjustment	0.96	1.00	1.00	0.95	0.74	1.00	0.97	0.95	0.77	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
			Control Type		Signalized							
			Method		HCM 2000							
			Average Delay		61.73							
			Average LOS		E							
			V/C		0.98							
			Loss Time		18							

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	119	246	18	357	303	74	34	238	416	28	289	41
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	63	5	92	78	19	9	61	107	7	74	11
Adjusted Volume	123	254	19	368	312	76	35	245	429	29	298	42

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	57642	57643	57640	57641	57646	57647	57648	57644	57645
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123	272	368	389	280	114	315	29	340
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.07	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	57642	57643	57640	57641	57646	57647	57648	57644	57645
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.990	1.000	0.971	1.000	0.850	0.850	1.000	0.981
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1766

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	57642	57643	57640	57641	57646	57647	57648	57644	57645
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	122.68	272.16	368.04	388.66	280.41	114.36	314.5	28.87	340.21
s, Saturation Flow Rate	1693	1697	1676	1730	1754	1515	1515	1710	1766
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.43	0.96	0.99	0.55	0.85	0.34	1.1	0.51	0.87
d1, Uniform Delay	33.69	37.22	34.88	20.13	35.24	7.85	26.77	42.77	33.72
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.82	44.72	43.70	3.01	22.58	2.73	82.38	28.69	21.85
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.51	81.95	78.58	23.14	57.82	10.58	109.14	71.47	55.56
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	68.45		50.10		72.96			56.81	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.73								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	57642	57643	57640	57641	57646	57647	57648	57644	57645
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.76	6.75	9.17	7.38	6.77	2.41	7.86	0.71	8.19
Q2, Second-term Queued	0.36	3.40	4.86	1.06	2.17	0.27	6.45	0.15	2.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.11	10.15	14.03	8.44	8.94	2.68	14.31	0.86	10.92
fB%, % Factor	1.77	1.57	1.53	1.59	1.58	1.79	1.53	1.92	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	15.89	21.46	13.44	14.15	4.80	21.87	1.65	16.99

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	57642	57643	57640	57641	57646	57647	57648	57644	57645
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.22	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	57642	57643	57640	57641	57646	57647	57648	57644	57645
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe					
		Control Type		TWSC	
		Method		HCM 2000	
		dI, Average Delay		21.9	
		Worst Case Delay		65.28	
		Worst Case LOS		F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	198.00	49.00	143.00	278.00	81.00	230.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	220.00	54.44	158.89	308.89	90.00	255.56

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			220.00	54.44	158.89		90.00	255.56
Conflicting Volume (Veh)	308.89			490.56	317.78	0.00		626.67	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	308.89			490.56	317.78	0.00		626.67	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1263.12			486.56	601.84	1629.70		401.68	1087.94
Capacity	1263.12			279.48	543.16	1629.70		362.51	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	220.00	54.44	158.89	308.89	90.00	255.56
cmx, Capacity	1263.12			279.48	543.16	1629.70		362.51	1087.94
V / C	0.00			0.79	0.10	0.10		0.25	0.23
d, Delay	7.85			65.28	59.03	7.45		19.54	12.92
LOS	A			F	F	A		C	B
dA, Approach Delay	2.62			64.04		2.53		14.65	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	274.44	158.89	308.89	345.56
Flared Storage Size					
cmx, Capacity	1263.12	309.27			715.19
V / C	0.00	0.89			0.48
Q95, 95% Queue Length	0.00	8.20			2.65
d, Delay	2.62	64.04			14.65
LOS	A	F			B
dA, Approach Delay	2.62	64.04	2.53		14.65
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.17	
Average LOS		A	
V/C		0.55	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	298	45	15	37	71	78	548	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	78	12	4	10	19	21	144	3
Adjusted Volume	75	33	42	56	314	47	16	39	75	82	577	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57651	57652	57649	57650	57655	57656	57653	57654
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	361	55	75	82	591
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57651	57652	57649	57650	57655	57656	57653	57654
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.403	1.000	0.894	1.000	0.576	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.980	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	712	1697	1610	1530	1037	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57651	57652	57649	57650	57655	57656	57653	57654
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	361.05	54.74	74.74	82.11	590.53
s, Saturation Flow Rate	1461	1530	712	1697	1610	1530	1037	1759
c, Capacity	244	255	415	990	268	255	605	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.13	0.36	0.2	0.29	0.14	0.58
d1, Uniform Delay	13.49	12.85	3.39	3.97	12.94	13.14	3.39	4.70
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.67	1.04	1.71	2.90	0.47	2.35
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.06	5.01	14.65	16.04	3.86	7.06
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.88		15.45		6.67	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.17							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57651	57652	57649	57650	57655	57656	57653	57654
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.91	0.47	0.65	0.37	3.70
Q2, Second-term Queued	0.17	0.05	0.05	0.34	0.06	0.10	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.33	0.60	0.24	0.23	0.42	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.25	0.53	0.75	0.44	4.52
fB%, % Factor	1.90	1.96	1.97	1.82	1.95	1.93	1.96	1.70
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	4.10	1.04	1.45	0.86	7.70

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57651	57652	57649	57650	57655	57656	57653	57654
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.08	0.21	0.03	0.05	0.08	0.34
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57651	57652	57649	57650	57655	57656	57653	57654
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		590.53		107.37		361.05	
Volc, Adjusted Opposing F	0.57		5.91		1.13		3.61	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		2.82		0.00		0.00	
gu	6.00		18.18		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.15		1.42		1.74	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.40		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.40	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		3.96						
				Worst Case Delay		27.81						
				Worst Case LOS		D						

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	18.00	6.00	31.00	273.00	2.00	13.00	66.00	55.00	11.00	499.00	0.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	18.56	6.19	31.96	281.44	2.06	13.40	68.04	56.70	11.34	514.43	0.00

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	18.56	6.19	31.96			13.40	68.04	56.70	11.34		
Conflicting Volume (Veh)	945.88	883.51	282.47	514.43			895.88	884.54	514.43	283.51		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	945.88	883.51	282.47	514.43			895.88	884.54	514.43	283.51		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	243.53	278.13	761.25	1026.03			254.81	286.23	564.16	1290.43		
Capacity	170.40	264.36	761.25	1026.03			230.24	272.06	564.16	1290.43		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	18.56	6.19	31.96	281.44	2.06	13.40	68.04	56.70	11.34	514.43	0.00
cmx, Capacity	170.40	264.36	761.25	1026.03			230.24	272.06	564.16	1290.43		
V / C	0.01	0.07	0.01	0.03			0.06	0.25	0.10	0.01		
d, Delay	27.21	19.70	10.81	8.62			27.81	25.41	18.55	7.81		
LOS	D	C	B	A			D	D	C	A		
dA, Approach Delay	17.87			0.87			22.83			0.17		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.32						0.10		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	25.77	315.46	138.14	525.77
Flared Storage Size				
cmx, Capacity	305.48	1026.03	337.92	1290.43
V / C	0.08	0.31	0.41	0.41
Q95, 95% Queue Length	0.27	1.31	1.93	2.02
d, Delay	17.87	8.62	22.83	7.81
LOS	C	A	C	A
dA, Approach Delay	17.87	0.87	22.83	0.17
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.77								
Worst Case Delay				29.61								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	23.00	427.00	9.00	10.00	0.00	0.00	10.00	582.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	25.27	469.23	9.89	10.99	0.00	0.00	10.99	639.56	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	25.27			10.99	0.00	0.00	10.99		
Conflicting Volume (Veh)	1186.26	1197.25	474.18	650.55			1191.21	1196.70	645.05	479.12		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1186.26	1197.25	474.18	650.55			1191.21	1196.70	645.05	479.12		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	167.03	187.38	594.43	916.89			165.73	187.52	468.65	1042.82		
Capacity	162.21	180.30	594.43	916.89			157.25	180.43	468.65	1042.82		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	25.27	469.23	9.89	10.99	0.00	0.00	10.99	639.56	10.99
cmx, Capacity	162.21	180.30	594.43	916.89			157.25	180.43	468.65	1042.82		
V / C	0.03	0.02	0.01	0.03			0.07	0.00	0.00	0.01		
d, Delay	28.05	25.83	11.92	9.04			29.61	26.67	14.39	8.49		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	20.77			0.45			29.61			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	25.27	479.12	10.99	10.99	650.55
Flared Storage Size						
cmx, Capacity	241.40			157.25		
V / C	0.05			0.07		
Q95, 95% Queue Length	0.17			0.22		
d, Delay	20.77			29.61		
LOS	C			D		
dA, Approach Delay	20.77	0.45		29.61	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	12.45		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	33.00	79.00	93.00	4.00	91.00	36.00	7.00	57.00	4.00	185.00	132.00	17.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	39.29	94.05	110.71	4.76	108.33	42.86	8.33	67.86	4.76	220.24	157.14	20.24
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	244.05	155.95	80.95	397.62
Left Turn Flow Rate	39.29	4.76	8.33	220.24
Right Turn Flow Rate	110.71	42.86	4.76	20.24
PLT, Proportion LT	0.16	0.03	0.10	0.55
PRT, Proportion RT	0.45	0.27	0.06	0.05
PHV, Proportion HV	2.06	1.39	1.94	0.55
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.20	-0.14	0.02	0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	244.05	155.95	80.95	397.62
hd initial	3.20	3.20	3.20	3.20
x initial	0.22	0.14	0.07	0.35
hd, iteration 1	4.69	4.66	5.08	4.67
Difference, iteration 1	1.49	1.46	1.88	1.47
hd, iteration 2	5.16	5.12	5.64	5.02
Difference, iteration 2	0.46	0.47	0.56	0.34
hd, iteration 3	5.28	5.26	5.79	5.12
Difference, iteration 3	0.12	0.14	0.16	0.11
hd, iteration 4	5.32	5.30	5.84	5.15
Difference, iteration 4	0.04	0.04	0.05	0.03
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.32	5.30	5.84	5.15
x final, Degree of Utilization	0.36	0.23	0.13	0.57

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	244.05	155.95	80.95	397.62
hd, Departure Headway	5.32	5.30	5.84	5.15
x, Degree of Utilization	0.36	0.23	0.13	0.57
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.32	3.30	3.84	3.15
Capacity	676.61	679.40	616.08	698.16
Delay	11.28	9.87	9.72	14.74
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	11.28	9.87	9.72	14.74
Approach LOS	B	A	A	B
Intersection Delay	12.45			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.14	
Worst Case Delay	10.2	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	30.00	2.00	64.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	41.10	2.74	87.67

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		2.74	87.67
Conflicting Volume (Veh)			53.42		218.49	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		218.49	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		774.20	1025.79
Capacity			1565.04		741.56	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	41.10	2.74	87.67
cmx, Capacity			1565.04		741.56	1025.79
V / C			0.04		0.00	0.09
d, Delay			7.40		10.20	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.52		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	105.48	90.41
Flared Storage Size			
cmx, Capacity		1565.04	1014.01
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.29
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.52	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.32	
Worst Case Delay	18.89	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	488.00	15.00	1.00	399.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	542.22	16.67	1.11	443.33	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		16.67	1.11		
Conflicting Volume (Veh)	451.11		989.44	447.22		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	451.11		989.44	447.22		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1058.52		275.79	615.56		
Capacity	1058.52		275.79	615.56		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	542.22	16.67	1.11	443.33	7.78
cmx, Capacity	1058.52		275.79	615.56		
V / C	0.00		0.06	0.00		
d, Delay	8.40		18.89	11.68		
LOS	A		C	B		
dA, Approach Delay	0.00		18.44		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	542.22	17.78	451.11
Flared Storage Size			
cmx, Capacity	0.00	285.64	
V / C	0.00	0.06	
Q95, 95% Queue Length	0.00	0.20	
d, Delay	4.20	18.44	
LOS	A	C	
dA, Approach Delay	0.00	18.44	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	19.15	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	495.00	5.00	6.00	400.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	556.18	5.62	6.74	449.44	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		5.62	6.74		
Conflicting Volume (Veh)	455.06		1024.16	452.25		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	455.06		1024.16	452.25		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1116.33		262.98	611.57		
Capacity	1116.33		260.23	611.57		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	556.18	5.62	6.74	449.44	5.62
cmx, Capacity	1116.33		260.23	611.57		
V / C	0.01		0.02	0.01		
d, Delay	8.25		19.15	11.21		
LOS	A		C	B		
dA, Approach Delay	0.12		14.82		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.09				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	564.04	12.36	455.06
Flared Storage Size			
cmx, Capacity	1116.33	378.99	
V / C	0.51	0.03	
Q95, 95% Queue Length	2.94	0.10	
d, Delay	8.25	14.82	
LOS	A	B	
dA, Approach Delay	0.12	14.82	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.27	
Worst Case Delay	10.35	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	124.00	15.00	19.00	85.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	140.91	17.05	21.59	96.59

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			21.59	
Conflicting Volume (Veh)	289.20	149.43			157.95	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	289.20	149.43			157.95	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	705.62	851.80			1385.83	
Capacity	693.97	851.80			1385.83	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	140.91	17.05	21.59	96.59
cmx, Capacity	693.97	851.80			1385.83	
V / C	0.03	0.00			0.02	
d, Delay	10.35	9.38			7.64	
LOS	B	A			A	
dA, Approach Delay	10.35		0.00		1.40	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.13	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	157.95	118.18
Flared Storage Size			
cmx, Capacity	693.97		1385.83
V / C	0.03		0.09
Q95, 95% Queue Length	0.09		0.28
d, Delay	10.35		7.64
LOS	B		A
dA, Approach Delay	10.35	0.00	1.40
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	3.58	
Worst Case Delay	13.81	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	162.00	83.00	94.00	114.00	26.00	87.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	172.34	88.30	100.00	121.28	27.66	92.55

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			100.00		27.66	92.55
Conflicting Volume (Veh)			260.64		537.77	216.49
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			260.64		537.77	216.49
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1297.97		507.73	815.88
Capacity			1297.97		465.61	815.88

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	172.34	88.30	100.00	121.28	27.66	92.55
cmx, Capacity			1297.97		465.61	815.88
V / C			0.08		0.06	0.11
d, Delay			8.00		13.81	10.49
LOS			A		B	B
dA, Approach Delay	0.00		3.62		11.25	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.66			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	260.64	221.28	120.21
Flared Storage Size			
cmx, Capacity		1297.97	695.49
V / C		0.17	0.17
Q95, 95% Queue Length		0.61	0.62
d, Delay		8.00	11.25
LOS		A	B
dA, Approach Delay	0.00	3.62	11.25
Approach LOS			B

Scenario 11

Monroe St gap open

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	61.14
Average LOS	E
V/C	0.92
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	38	267	72	98	313	4	66	259	57	117	439	109
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	70	19	26	82	1	17	67	15	30	114	28
Adjusted Volume	40	278	75	102	326	4	69	270	59	122	457	114

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	57665	57666	57663	57664	57669	57670	57667	57668
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40	353	102	330	69	329	122	571
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.01	0.00	0.18	0.00	0.20

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57665	57666	57663	57664	57669	57670	57667	57668
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	0.998	1.000	0.973	1.000	0.970
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1761	1644	1734	1676	1695

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57665	57666	57663	57664	57669	57670	57667	57668
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	39.58	353.13	102.08	330.21	68.75	329.17	121.88	570.83
s, Saturation Flow Rate	1710	1725	1644	1761	1644	1734	1676	1695
c, Capacity	46	471	91	503	117	551	120	512
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.86	0.75	1.12	0.66	0.59	0.6	1.02	1.12
d1, Uniform Delay	27.15	18.60	26.45	17.58	25.20	16.08	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	96.79	10.44	130.93	6.55	19.58	4.72	87.06	75.45
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	123.94	29.03	157.38	24.13	44.78	20.80	113.06	95.00
LOS	F	C	F	C	D	C	F	F
dA, Approach Delay	38.60		55.60		24.94		98.18	
Approach LOS	D		E		C		F	
dI, Intersection Delay	61.14							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57665	57666	57663	57664	57669	57670	57667	57668
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.61	5.02	1.59	4.52	1.04	4.31	1.90	8.88
Q2, Second-term Queued	0.40	1.33	2.25	0.93	0.25	0.78	1.82	10.79
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.01	6.35	3.84	5.44	1.28	5.09	3.71	19.67
fB%, % Factor	1.91	1.64	1.73	1.67	1.89	1.68	1.74	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	1.93	10.41	6.65	9.08	2.42	8.55	6.46	29.69

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57665	57666	57663	57664	57669	57670	57667	57668
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.19	0.04	0.19	0.07	0.34
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57665	57666	57663	57664	57669	57670	57667	57668
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				15.98								
Average LOS				B								
V/C				0.77								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	7	1759	14	22	31	22	27	1620	12	23	26	85
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	473	4	6	8	6	7	435	3	6	7	23
Adjusted Volume	8	1891	15	24	33	24	29	1742	13	25	28	91

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57676	57677	57679	57675	57671	57672	57674	57680
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	8	1891	15	81	29	1742	13	144
PLT, Proportion Left Turns	1.00	0.00	0.00	0.29	1.00	0.00	0.00	0.17
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.63

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57676	57677	57679	57675	57671	57672	57674	57680
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.604	0.950	1.000	1.000	0.912
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.960	1.000	1.000	0.850	0.914
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1044	1710	3327	1530	1500

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57676	57677	57679	57675	57671	57672	57674	57680
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	7.53	1891.4	15.05	80.65	29.03	1741.94	12.9	144.09
s, Saturation Flow Rate	1710	3327	1530	1044	1710	3327	1530	1500
c, Capacity	29	2440	1122	113	71	2523	1160	163
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.26	0.78	0.01	0.71	0.41	0.69	0.01	0.89
d1, Uniform Delay	58.27	9.89	4.31	51.70	56.06	7.35	3.53	52.77
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	21.30	2.48	0.02	31.73	16.37	1.57	0.02	45.66
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	79.57	12.37	4.33	83.43	72.42	8.93	3.55	98.43
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.57			83.43	9.92			98.43
Approach LOS	B			F	A			F
dI, Intersection Delay	15.98							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57676	57677	57679	57675	57671	57672	57674	57680
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.25	20.46	0.14	2.60	0.94	15.47	0.10	4.74
Q2, Second-term Queued	0.04	5.03	0.02	0.65	0.15	3.55	0.02	1.74
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.30	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.29	25.49	0.16	3.25	1.09	19.02	0.12	6.48
fB%, % Factor	1.97	1.50	1.98	1.76	1.90	1.51	1.99	1.64
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.57	38.31	0.31	5.72	2.07	28.73	0.24	10.61

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57676	57677	57679	57675	57671	57672	57674	57680
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.08	0.02	0.52	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57676	57677	57679	57675	57671	57672	57674	57680
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				24.73
PLT, Proportion LT in Lane				0.29				0.17
PLTo, Proportion LT in Op				0.17				0.29
LT Volume per Cycle				0.79				0.82
Vo, Opposing Flow				144.09				80.65
Volc, Adjusted Opposing F				4.80				2.69
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				2.07
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.47				5.30
gu				2.53				7.70
PL				0.29				0.17
de facto caused by PL >=								
EL1				1.47				1.37
EL2				5.82				2.59
gdif				8.27				3.23
fm				0.60				0.91
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.60	0.95	1.00	1.00	0.91

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.21								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	90	1662	111	106	224	147	194	1475	88	23	170	31
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	24	442	30	28	60	39	52	392	23	6	45	8
Adjusted Volume	96	1768	118	113	238	156	206	1569	94	24	181	33

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	96	1768	118	113	238	36	120	206	1569	94	24	181	33
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.615	1.000	1.000	1.000	0.950	1.000	1.000	0.524	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1085	3427	1515	1515	1676	3327	1500	944	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	95.74	1768.09	118.09	112.77	238.3	36.49	119.89	206.38	1569.15	93.62	24.47	180.85	32.98
s, Saturation Flow Rate	1676	3360	1515	1085	3427	1515	1515	1676	3327	1500	944	3427	1530
c, Capacity	335	1988	896	199	628	303	278	182	1664	750	173	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.29	0.89	0.13	0.57	0.38	0.12	0.43	1.14	0.94	0.12	0.14	0.29	0.12
d1, Uniform Delay	40.73	21.12	10.85	44.66	43.01	9.18	33.32	53.50	28.39	16.00	41.08	42.25	40.90
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.13	6.45	0.30	11.19	1.74	0.81	4.83	108.20	12.17	0.34	1.71	1.15	0.85
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.86	27.56	11.15	55.85	44.75	9.99	38.15	161.70	40.55	16.34	42.79	43.40	41.75
LOS	D	C	B	E	D	A	D	F	D	B	D	D	D
dA, Approach Delay	27.32			43.16				52.72			43.11		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.21												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.71	26.68	1.74	3.43	3.66	1.00	3.54	6.88	25.99	1.66	0.68	2.73	0.92
Q2, Second-term Queued	0.26	7.59	0.20	0.56	0.39	0.08	0.42	5.20	8.75	0.16	0.07	0.26	0.08
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	2.97	34.27	1.94	3.99	4.05	1.08	3.97	12.08	34.75	1.83	0.75	2.99	0.99
fB%, % Factor	1.78	1.50	1.84	1.73	1.72	1.90	1.73	1.54	1.50	1.85	1.93	1.78	1.91
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.27	51.42	3.57	6.88	6.97	2.05	6.85	18.65	52.14	3.37	1.45	5.30	1.90

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.10	0.07	0.02	0.08	0.12	0.47	0.06	0.03	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	57690	57691	57693	57685	57686	57688	57689	57681	57682	57684	57694	57695	57697
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				112.77							24.47		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.76							0.82		
Vo, Opposing Flow				180.85							238.30		
Volc, Adjusted Opposing F				3.32							4.37		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.74							3.71		
gu				20.26							18.29		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.50							1.59		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.62							0.52		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.62	1.00	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.69	
Average LOS		D	
V/C		0.97	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	278	1639	21	79	218	162	48	1566	48	7	246	55
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	72	427	5	21	57	42	13	408	13	2	64	14
Adjusted Volume	290	1707	22	82	227	169	50	1631	50	7	256	57

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57714	57715	57717	57712	57708	57709	57711	57718
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	290	1707	22	478	50	1631	50	321
PLT, Proportion Left Turns	1.00	0.00	0.00	0.17	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.35	0.00	0.00	1.00	0.18

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57714	57715	57717	57712	57708	57709	57711	57718
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.757	0.950	1.000	1.000	0.944
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.947	1.000	1.000	0.850	0.973
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2339	1613	3360	1471	3029

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57714	57715	57717	57712	57708	57709	57711	57718
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	289.58	1707.29	21.88	478.13	50	1631.25	50	320.83
s, Saturation Flow Rate	1710	3327	1530	2339	1613	3360	1471	3029
c, Capacity	323	1869	859	536	149	1562	684	694
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.9	0.91	0.03	0.89	0.34	1.04	0.07	0.46
d1, Uniform Delay	47.49	23.68	11.70	44.81	50.99	32.10	17.78	39.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	29.32	8.37	0.05	19.73	5.96	35.21	0.21	2.21
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.81	32.05	11.75	64.54	56.95	67.31	17.99	42.08
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.25			64.54	65.58			42.08
Approach LOS	D			E	E			D
dI, Intersection Delay	51.69							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57714	57715	57717	57712	57708	57709	57711	57718
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.42	26.91	0.32	8.11	1.56	28.56	0.92	4.84
Q2, Second-term Queued	3.12	8.21	0.03	2.75	0.18	13.90	0.08	0.58
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.58	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.54	35.12	0.36	10.86	1.74	42.45	1.01	5.42
fB%, % Factor	1.54	1.50	1.97	1.56	1.85	1.50	1.91	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.32	52.70	0.70	16.92	3.23	63.68	1.92	9.05

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57714	57715	57717	57712	57708	57709	57711	57718
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.20	0.03	0.49	0.03	0.11
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57714	57715	57717	57712	57708	57709	57711	57718
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				82.29				7.29
PLT, Proportion LT in Lane				0.17				0.02
PLTo, Proportion LT in Op				0.02				0.17
LT Volume per Cycle				2.74				0.24
Vo, Opposing Flow				320.83				478.13
Volc, Adjusted Opposing F				5.62				8.37
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.46				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				5.55				11.00
gu				21.95				11.53
PL				0.45				0.05
de facto caused by PL >=								
EL1				1.80				2.13
EL2				19.17				0.00
gdif				0.00				0.00
fm				0.60				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.76	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.69
Worst Case Delay	11.68
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	400.00	56.00	348.00	143.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	439.56	61.54	382.42	157.14

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		61.54		
Conflicting Volume (Veh)		460.99		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		460.99		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		600.50		
Capacity		600.50		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	439.56	61.54	382.42	157.14
cmx, Capacity		600.50		
V / C		0.10		
d, Delay		11.68		
LOS		B		
dA, Approach Delay	0.00	11.68	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	439.56	61.54	539.56
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	11.68	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	17.85	
Average LOS	B	
V/C	0.42	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	320	85	166	375
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	84	22	44	99
Adjusted Volume	89	118	337	89	175	395

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	57735	57734	57736	57738
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	426	175	395
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.21	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	57735	57734	57736	57738
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.403
fRT, Right Turn Adjustment	0.923	0.972	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1698	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	57735	57734	57736	57738
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	426.32	132	43
			175	394.74
s, Saturation Flow Rate	1627	1698	1693	1748
			855	
c, Capacity	560	755	132	344
			475	971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
X, Volume / Capacity	0.37	0.56	1.00	0.13
			0.37	0.41
d1, Uniform Delay	22.16	18.54	10.73	11.48
k, Delay Calibration	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.87	3.05	2.19	1.26
d3, Initial Queue Delay	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	0.56
PF, Progression Factor	1.00	1.00	1.00	1.00
d, Delay	24.04	21.59	12.92	12.75
LOS	C	C	B	B
dA, Approach Delay	24.04	21.59	12.80	
Approach LOS	C	C	B	
dI, Intersection Delay	17.85			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	57735	57734	57736	57738
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	7.91	2.44	5.67
Q2, Second-term Queued	0.44	1.18	0.39	0.76
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.68	1.12
Q, Average Back of Queue	4.34	9.09	2.83	6.42
fB%, % Factor	1.71	1.58	1.78	1.64
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	14.37	5.05	10.53

Signal Timing Information					
Approach	N	E	W		
Lane Group	57735	57734	57736		57738
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.25	0.08	0.06	0.23
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	57735	57734	57736		57738
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				426.32	
Volc, Adjusted Opposing Flow				10.66	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.02	
gu				31.98	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.84	
EL2				0.00	
gdifff				0.00	
fm				0.40	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.40	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		8.03						
				Worst Case Delay		52.75						
				Worst Case LOS		F						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	46.00	403.00	62.00	0.00	68.00	86.00	25.00	293.00	29.00	6.00	97.00	27.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	50.55	442.86	68.13	0.00	74.73	94.51	27.47	321.98	31.87	6.59	106.59	29.67

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	50.55			0.00	74.73	94.51	27.47			6.59	106.59	29.67
Conflicting Volume (Veh)	353.85			1039.01	1004.95	337.91	510.99			1055.49	986.81	476.92
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	353.85			1039.01	1004.95	337.91	510.99			1055.49	986.81	476.92
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1177.66			210.54	243.42	704.28	1064.59			205.17	247.48	580.08
Capacity	1177.66			117.37	221.04	704.28	1064.59			122.38	224.72	580.08

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	50.55	442.86	68.13	0.00	74.73	94.51	27.47	321.98	31.87	6.59	106.59	29.67
cmx, Capacity	1177.66			117.37	221.04	704.28	1064.59			122.38	224.72	580.08
V / C	0.04			0.00	0.34	0.13	0.03			0.05	0.47	0.05
d, Delay	8.19			44.35	29.96	18.78	8.47			52.75	39.35	29.54
LOS	A			E	D	C	A			F	E	D
dA, Approach Delay	0.74			23.72			0.61			37.93		
Approach LOS				C						E		
dRank1, Rank 1 Delay	0.50						0.28					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	561.54	169.23	381.32	142.86
Flared Storage Size				
cmx, Capacity	1177.66	358.35	1064.59	246.58
V / C	0.48	0.47	0.36	0.58
Q95, 95% Queue Length	2.64	2.43	1.64	3.29
d, Delay	8.19	23.72	8.47	37.93
LOS	A	C	A	E
dA, Approach Delay	0.74	23.72	0.61	37.93
Approach LOS		C		E

Node 13764: Fuller & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		6.07						
				Worst Case Delay		13.26						
				Worst Case LOS		B						

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	106.00	17.00	21.00	104.00	15.00	5.00	35.00	45.00	7.00	66.00	39.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	115.22	18.48	22.83	113.04	16.30	5.43	38.04	48.91	7.61	71.74	42.39

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	115.22	18.48	22.83			5.43	38.04	48.91	7.61		
Conflicting Volume (Veh)	318.48	296.20	121.20	114.13			341.85	283.15	92.93	129.35		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	318.48	296.20	121.20	114.13			341.85	283.15	92.93	129.35		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	638.19	615.36	922.04	1487.60			608.43	627.43	969.72	1468.77		
Capacity	567.66	601.78	922.04	1487.60			500.18	613.59	969.72	1468.77		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	115.22	18.48	22.83	113.04	16.30	5.43	38.04	48.91	7.61	71.74	42.39
cmx, Capacity	567.66	601.78	922.04	1487.60			500.18	613.59	969.72	1468.77		
V / C	0.04	0.19	0.02	0.02			0.01	0.06	0.05	0.01		
d, Delay	13.26	12.90	10.82	7.46			12.87	11.54	9.39	7.46		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.70			1.12			10.48			0.47		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.12						0.04		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	155.43	152.17	92.39	121.74
Flared Storage Size				
cmx, Capacity	622.24	1487.60	749.27	1468.77
V / C	0.25	0.10	0.12	0.08
Q95, 95% Queue Length	0.98	0.34	0.42	0.27
d, Delay	12.70	7.46	10.48	7.46
LOS	B	A	B	A
dA, Approach Delay	12.70	1.12	10.48	0.47
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.32								
Worst Case Delay				33.3								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	125.00	130.00	4.00	81.00	31.00	97.00	29.00	121.00	137.00	4.00	19.00	48.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	147.06	152.94	4.71	95.29	36.47	114.12	34.12	142.35	161.18	4.71	22.35	56.47

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	147.06			95.29	36.47	114.12	34.12			4.71	22.35	56.47
Conflicting Volume (Veh)	303.53			777.65	742.94	222.94	157.65			815.88	821.18	155.29
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	303.53			777.65	742.94	222.94	157.65			815.88	821.18	155.29
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1251.67			315.03	345.67	816.57	1434.36			298.08	311.52	885.21
Capacity	1251.67			246.16	296.22	816.57	1434.36			207.25	266.96	885.21

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	147.06	152.94	4.71	95.29	36.47	114.12	34.12	142.35	161.18	4.71	22.35	56.47
cmx, Capacity	1251.67			246.16	296.22	816.57	1434.36			207.25	266.96	885.21
V / C	0.12			0.39	0.12	0.14	0.02			0.02	0.08	0.06
d, Delay	8.26			33.30	30.83	10.12	7.57			23.87	19.98	10.57
LOS	A			D	D	B	A			C	C	B
dA, Approach Delay	3.99			22.18			0.77			13.84		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	147.06	157.65	131.76	114.12	337.65	83.53
Flared Storage Size						
cmx, Capacity			258.24		1434.36	490.69
V / C			0.51		0.24	0.17
Q95, 95% Queue Length			2.67		0.92	0.61
d, Delay			32.62		7.57	13.84
LOS			D		A	B
dA, Approach Delay	3.99		22.18		0.77	13.84
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.21	
Worst Case Delay	15.15	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	35.00	16.00	291.00	43.00	19.00	308.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	37.23	17.02	309.57	45.74	20.21	327.66

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	37.23	17.02			20.21	
Conflicting Volume (Veh)	700.53	332.45			355.32	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	700.53	332.45			355.32	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	403.68	713.89			1214.60	
Capacity	395.36	713.89			1214.60	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	37.23	17.02	309.57	45.74	20.21	327.66
cmx, Capacity	395.36	713.89			1214.60	
V / C	0.09	0.02			0.02	
d, Delay	15.15	11.09			8.01	
LOS	C	B			A	
dA, Approach Delay	13.88		0.00		0.47	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.17	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	54.26	355.32	347.87
Flared Storage Size			
cmx, Capacity	459.71		1214.60
V / C	0.12		0.29
Q95, 95% Queue Length	0.40		1.19
d, Delay	13.88		8.01
LOS	B		A
dA, Approach Delay	13.88	0.00	0.47
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.64	
Worst Case Delay	22.15	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	31.00	396.00	5.00	23.00	647.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	31.63	404.08	5.10	23.47	660.20	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	31.63		5.10	23.47		
Conflicting Volume (Veh)	665.31		1130.10	662.76		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	665.31		1130.10	662.76		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	919.21		227.33	457.85		
Capacity	919.21		219.51	457.85		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	31.63	404.08	5.10	23.47	660.20	5.10
cmx, Capacity	919.21		219.51	457.85		
V / C	0.03		0.02	0.05		
d, Delay	9.06		22.15	13.62		
LOS	A		C	B		
dA, Approach Delay	0.66		15.14		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	31.63	404.08	28.57	665.31
Flared Storage Size				
cmx, Capacity			383.50	
V / C			0.07	
Q95, 95% Queue Length			0.24	
d, Delay			15.14	
LOS			C	
dA, Approach Delay	0.66		15.14	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				8.38								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	24.00	53.00	9.00	5.00	118.00	12.00	6.00	46.00	5.00	10.00	131.00	19.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	25.53	56.38	9.57	5.32	125.53	12.77	6.38	48.94	5.32	10.64	139.36	20.21
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	91.49	143.62	60.64	170.21
Left Turn Flow Rate	25.53	5.32	6.38	10.64
Right Turn Flow Rate	9.57	12.77	5.32	20.21
PLT, Proportion LT	0.28	0.04	0.11	0.06
PRT, Proportion RT	0.10	0.09	0.09	0.12
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.01	-0.05	-0.03	-0.06

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	91.49	143.62	60.64	170.21
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.13	0.05	0.15
hd, iteration 1	4.47	4.25	4.47	4.21
Difference, iteration 1	1.27	1.05	1.27	1.01
hd, iteration 2	4.66	4.40	4.68	4.36
Difference, iteration 2	0.19	0.15	0.20	0.14
hd, iteration 3	4.69	4.42	4.71	4.38
Difference, iteration 3	0.03	0.02	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.69	4.42	4.71	4.38
x final, Degree of Utilization	0.12	0.18	0.08	0.21

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	91.49	143.62	60.64	170.21
hd, Departure Headway	4.69	4.42	4.71	4.38
x, Degree of Utilization	0.12	0.18	0.08	0.21
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.69	2.42	2.71	2.38
Capacity	767.61	814.16	765.03	821.81
Delay	8.32	8.36	8.11	8.52
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.32	8.36	8.11	8.52
Approach LOS	A	A	A	A
Intersection Delay	8.38			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				16.67								
Average LOS				C								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	2.00	58.00	22.00	58.00	158.00	1.00	76.00	126.00	182.00	14.00	224.00	146.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	2.20	63.74	24.18	63.74	173.63	1.10	83.52	138.46	200.00	15.38	246.15	160.44
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	90.11	238.46	83.52	338.46	421.98
Left Turn Flow Rate	2.20	63.74	83.52	0.00	15.38
Right Turn Flow Rate	24.18	1.10	0.00	200.00	160.44
PLT, Proportion LT	0.02	0.27	1.00	0.00	0.04
PRT, Proportion RT	0.27	0.00	0.00	0.59	0.38
PHV, Proportion HV	2.76	2.72	1.00	1.59	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.11	0.10	0.52	-0.39	-0.20

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	90.11	238.46	83.52	338.46	421.98
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.08	0.21	0.07	0.30	0.38
hd, iteration 1	5.39	5.19	6.19	5.28	4.71
Difference, iteration 1	2.19	1.99	2.99	2.08	1.51
hd, iteration 2	6.31	5.96	6.81	5.89	5.39
Difference, iteration 2	0.92	0.76	0.62	0.62	0.68
hd, iteration 3	6.68	6.23	7.07	6.15	5.61
Difference, iteration 3	0.37	0.27	0.26	0.26	0.22
hd, iteration 4	6.81	6.33	7.16	6.24	5.70
Difference, iteration 4	0.13	0.10	0.09	0.09	0.09
hd, iteration 5	6.86	6.37	7.20	6.28	5.73
Difference, iteration 5	0.05	0.04	0.04	0.03	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.86	6.37	7.20	6.28	5.73
x final, Degree of Utilizatio	0.17	0.42	0.17	0.59	0.67

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	90.11	238.46	83.52	338.46	421.98
hd, Departure Headway	6.86	6.37	7.20	6.28	5.73
x, Degree of Utilization	0.17	0.42	0.17	0.59	0.67
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.86	4.37	4.90	3.98	3.73
Capacity	524.38	564.72	499.71	573.14	627.20
Delay	11.28	13.94	11.34	17.61	19.68
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.28	13.94	16.37		19.68
Approach LOS	B	B	C		C
Intersection Delay	16.67				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.81	
Worst Case Delay	26.55	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	136.00	140.00	129.00	99.00	305.00	185.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	138.78	142.86	131.63	101.02	311.22	188.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	138.78		131.63	101.02		
Conflicting Volume (Veh)	500.00		826.02	405.61		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	500.00		826.02	405.61		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1074.57		344.56	647.42		
Capacity	1074.57		295.98	647.42		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	138.78	142.86	131.63	101.02	311.22	188.78
cmx, Capacity	1074.57		295.98	647.42		
V / C	0.13		0.44	0.16		
d, Delay	8.85		26.55	11.59		
LOS	A		D	B		
dA, Approach Delay	4.36		20.05		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.25				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	281.63	131.63	101.02	500.00
Flared Storage Size				
cmx, Capacity	1074.57			
V / C	0.26			
Q95, 95% Queue Length	1.05			
d, Delay	8.85			
LOS	A			
dA, Approach Delay	4.36	20.05		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.49	
Worst Case Delay	14.85	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	259.00	31.00	10.00	299.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	291.01	34.83	11.24	335.96

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			11.24	
Conflicting Volume (Veh)	666.85	308.43			325.84	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	666.85	308.43			325.84	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	427.14	736.29			1245.19	
Capacity	422.34	736.29			1245.19	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	291.01	34.83	11.24	335.96
cmx, Capacity	422.34	736.29			1245.19	
V / C	0.12	0.03			0.01	
d, Delay	14.85	11.21			7.92	
LOS	B	B			A	
dA, Approach Delay	13.65		0.00		0.26	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	325.84	347.19
Flared Storage Size			
cmx, Capacity	491.10		1245.19
V / C	0.15		0.28
Q95, 95% Queue Length	0.54		1.15
d, Delay	13.65		7.92
LOS	B		A
dA, Approach Delay	13.65	0.00	0.26
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	9.62
Average LOS	A
V/C	0.56
Loss Time	8

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	44	196	141	45	260	18	60	109	19	113	409	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	12	53	38	12	70	5	16	29	5	30	110	1
Adjusted Volume	47	211	152	48	280	19	65	117	20	122	440	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57765	57766	57763	57764	57769	57770	57767	57768
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	258	152	48	299	182	20	122	445
PLT, Proportion Left Turns	0.18	0.00	1.00	0.00	0.36	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57765	57766	57763	57764	57769	57770	57767	57768
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.926	1.000	0.468	1.000	0.828	1.000	0.610	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1633	1485	843	1748	1476	1530	1016	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57765	57766	57763	57764	57769	57770	57767	57768
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	258.06	151.61	48.39	298.92	181.72	20.43	121.51	445.16
s, Saturation Flow Rate	1633	1485	843	1748	1476	1530	1016	1762
c, Capacity	490	446	365	757	443	459	440	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.53	0.34	0.13	0.39	0.41	0.04	0.28	0.58
d1, Uniform Delay	8.73	8.19	5.11	5.81	8.38	7.45	5.47	6.45
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.01	2.07	0.75	1.54	2.80	0.18	1.55	3.24
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	12.74	10.25	5.86	7.35	11.18	7.63	7.02	9.69
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	11.82		7.14		10.82		9.12	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.62							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57765	57766	57763	57764	57769	57770	57767	57768
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.79	0.98	0.24	1.70	1.21	0.12	0.65	2.81
Q2, Second-term Queued	0.35	0.15	0.04	0.28	0.21	0.01	0.11	0.60
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.30	0.31	0.30	0.44
Q, Average Back of Queue	2.14	1.14	0.28	1.99	1.42	0.14	0.76	3.42
fB%, % Factor	1.83	1.90	1.97	1.84	1.88	1.99	1.93	1.75
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	3.91	2.16	0.56	3.65	2.66	0.27	1.48	5.99

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57765	57766	57763	57764	57769	57770	57767	57768
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.16	0.10	0.06	0.17	0.12	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57765	57766	57763	57764	57769	57770	57767	57768
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	47.31		48.39		64.52		121.51	
PLT, Proportion LT in Lane	0.18		1.00		0.36		1.00	
PLTo, Proportion LT in Op	0.32		0.00		0.12		0.00	
LT Volume per Cycle	0.39		0.40		0.54		1.01	
Vo, Opposing Flow	181.72		445.16		258.06		298.92	
Volc, Adjusted Opposing F	1.59		3.71		2.26		2.49	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.58		0.00		1.03		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.59		0.00		0.00	
gu	7.42		11.41		7.97		13.00	
PL	0.18		1.00		0.36		1.00	
de facto caused by PL >=								
EL1	1.54		1.88		1.68		1.64	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.93		0.47		0.83		0.61	
fLT, Left Turn Adjustment	0.93	1.00	0.47	1.00	0.83	1.00	0.61	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	19.53
Average LOS	C

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	117.00	193.00	32.00	51.00	11.00	26.00	253.00	27.00	310.00	44.00	70.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	123.16	203.16	33.68	53.68	11.58	27.37	266.32	28.42	326.32	46.32	73.68
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	136.84	203.16	87.37	11.58	322.11	372.63	73.68
Left Turn Flow Rate	13.68	0.00	33.68	0.00	27.37	326.32	0.00
Right Turn Flow Rate	0.00	203.16	0.00	11.58	28.42	0.00	73.68
PLT, Proportion LT	0.10	0.00	0.39	0.00	0.08	0.88	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.09	0.00	1.00
PHV, Proportion HV	0.00	3.00	1.84	0.00	0.83	1.75	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.05	-0.65	0.22	-0.70	-0.02	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	136.84	203.16	87.37	11.58	322.11	372.63	73.68
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.12	0.18	0.08	0.01	0.29	0.33	0.07
hd, iteration 1	5.65	4.95	6.13	5.19	5.60	6.10	4.92
Difference, iteration 1	2.45	1.75	2.93	1.99	2.40	2.90	1.72
hd, iteration 2	6.63	5.93	7.23	6.29	6.48	6.85	5.67
Difference, iteration 2	0.99	0.98	1.10	1.09	0.88	0.75	0.74
hd, iteration 3	6.95	6.24	7.65	6.71	6.77	7.15	5.96
Difference, iteration 3	0.31	0.31	0.42	0.42	0.29	0.30	0.30
hd, iteration 4	7.07	6.36	7.80	6.85	6.87	7.25	6.06
Difference, iteration 4	0.12	0.12	0.14	0.14	0.11	0.10	0.10
hd, iteration 5	7.11	6.40	7.85	6.90	6.91	7.28	6.09
Difference, iteration 5	0.04	0.04	0.05	0.05	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.11	6.40	7.85	6.90	6.91	7.28	6.09
x final, Degree of Utilization	0.27	0.36	0.19	0.02	0.62	0.75	0.12

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				61.46								
Average LOS				E								
V/C				0.97								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	119	248	15	356	302	74	34	238	416	28	290	40
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	31	64	4	92	78	19	9	61	107	7	75	10
Adjusted Volume	123	256	15	367	311	76	35	245	429	29	299	41

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	57773	57774	57771	57772	57777	57778	57779	57775	57776
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	123	271	367	388	280	114	315	29	340
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.06	0.00	0.20	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	57773	57774	57771	57772	57777	57778	57779	57775	57776
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.991	1.000	0.970	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1700	1676	1730	1754	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	57773	57774	57771	57772	57777	57778	57779	57775	57776
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	122.68	271.13	367.01	387.63	280.41	114.36	314.5	28.87	340.21
s, Saturation Flow Rate	1693	1700	1676	1730	1754	1515	1515	1710	1767
c, Capacity	282	283	373	711	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.43	0.96	0.99	0.55	0.85	0.34	1.1	0.51	0.87
d1, Uniform Delay	33.69	37.18	34.85	20.11	35.24	7.85	26.77	42.77	33.71
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	4.82	43.56	43.06	2.99	22.58	2.73	82.38	28.69	21.80
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	38.51	80.74	77.91	23.10	57.82	10.58	109.14	71.47	55.51
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	67.58		49.76		72.96			56.76	
Approach LOS	E		D		E			E	
dI, Intersection Delay	61.46								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	57773	57774	57771	57772	57777	57778	57779	57775	57776
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.76	6.72	9.14	7.36	6.77	2.41	7.86	0.71	8.19
Q2, Second-term Queued	0.36	3.31	4.79	1.05	2.17	0.27	6.45	0.15	2.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.11	10.03	13.93	8.41	8.94	2.68	14.31	0.86	10.91
fB%, % Factor	1.77	1.57	1.53	1.59	1.58	1.79	1.53	1.92	1.56
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	5.50	15.73	21.32	13.39	14.15	4.80	21.87	1.65	16.98

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	57773	57774	57771	57772	57777	57778	57779	57775	57776
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.07	0.16	0.22	0.22	0.16	0.08	0.21	0.02	0.19
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	57773	57774	57771	57772	57777	57778	57779	57775	57776
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe					
		Control Type		TWSC	
		Method		HCM 2000	
		dI, Average Delay		19.24	
		Worst Case Delay		56.57	
		Worst Case LOS		F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	187.00	58.00	143.00	303.00	81.00	215.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	207.78	64.44	158.89	336.67	90.00	238.89

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			207.78	64.44	158.89		90.00	238.89
Conflicting Volume (Veh)	336.67			482.22	317.78	0.00		654.44	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	336.67			482.22	317.78	0.00		654.44	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1233.87			492.80	601.84	1629.70		387.25	1087.94
Capacity	1233.87			286.19	543.16	1629.70		349.49	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	207.78	64.44	158.89	336.67	90.00	238.89
cmx, Capacity	1233.87			286.19	543.16	1629.70		349.49	1087.94
V / C	0.00			0.73	0.12	0.10		0.26	0.22
d, Delay	7.92			56.57	50.62	7.45		19.97	12.98
LOS	A			F	F	A		C	B
dA, Approach Delay	2.64			55.16		2.39		14.89	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	272.22	158.89	336.67	328.89
Flared Storage Size					
cmx, Capacity	1233.87	322.29			689.35
V / C	0.00	0.84			0.48
Q95, 95% Queue Length	0.00	7.45			2.59
d, Delay	2.64	55.16			14.89
LOS	A	F			B
dA, Approach Delay	2.64	55.16	2.39		14.89
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		7.94	
Average LOS		A	
V/C		0.5	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	286	45	15	37	71	78	495	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	75	12	4	10	19	21	130	3
Adjusted Volume	75	33	42	56	301	47	16	39	75	82	521	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57782	57783	57780	57781	57786	57787	57784	57785
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	348	55	75	82	535
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.14	0.00	1.00	0.00	0.03

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57782	57783	57780	57781	57786	57787	57784	57785
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.448	1.000	0.894	1.000	0.583	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.980	1.000	0.850	1.000	0.996
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	790	1695	1610	1530	1049	1758

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57782	57783	57780	57781	57786	57787	57784	57785
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	348.42	54.74	74.74	82.11	534.74
s, Saturation Flow Rate	1461	1530	790	1695	1610	1530	1049	1758
c, Capacity	244	255	461	989	268	255	612	1025
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.12	0.35	0.2	0.29	0.13	0.52
d1, Uniform Delay	13.49	12.85	3.36	3.93	12.94	13.14	3.39	4.49
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.54	0.99	1.71	2.90	0.46	1.90
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	3.90	4.92	14.65	16.04	3.85	6.39
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		4.78		15.45		6.05	
Approach LOS	B		A		B		A	
dI, Intersection Delay	7.94							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57782	57783	57780	57781	57786	57787	57784	57785
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	1.83	0.47	0.65	0.37	3.20
Q2, Second-term Queued	0.17	0.05	0.05	0.32	0.06	0.10	0.07	0.66
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.35	0.60	0.24	0.23	0.43	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.15	0.53	0.75	0.44	3.86
fB%, % Factor	1.90	1.96	1.97	1.83	1.95	1.93	1.96	1.73
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.59	3.93	1.04	1.45	0.86	6.68

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57782	57783	57780	57781	57786	57787	57784	57785
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation Flow	0.07	0.03	0.07	0.21	0.03	0.05	0.08	0.30
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57782	57783	57780	57781	57786	57787	57784	57785
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Multiple(M)	S		S		S		S	
Opposed by Single(S) or Multiple(M)	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opposing Flow	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Opposing Flow	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		534.74		107.37		348.42	
Volc, Adjusted Opposing Flow	0.57		5.35		1.13		3.48	
FLUo, Opposing Lane Utilization	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Ratio	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clearance	0.00		1.84		0.00		0.00	
gu	6.00		19.16		5.92		21.00	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >= 0.5								
EL1	1.33		2.04		1.42		1.72	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.45		0.89		0.58	
fLT, Left Turn Adjustment	0.81	1.00	0.45	1.00	0.89	1.00	0.58	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.74								
Worst Case Delay				24.02								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	29.00	276.00	2.00	14.00	66.00	52.00	11.00	407.00	25.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	29.90	284.54	2.06	14.43	68.04	53.61	11.34	419.59	25.77

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	29.90			14.43	68.04	53.61	11.34		
Conflicting Volume (Veh)	861.34	813.40	285.57	445.36			813.40	801.55	432.47	286.60		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	861.34	813.40	285.57	445.36			813.40	801.55	432.47	286.60		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	277.78	305.77	758.23	1088.81			289.98	319.78	627.43	1287.07		
Capacity	203.58	292.14	758.23	1088.81			263.69	305.53	627.43	1287.07		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	29.90	284.54	2.06	14.43	68.04	53.61	11.34	419.59	25.77
cmx, Capacity	203.58	292.14	758.23	1088.81			263.69	305.53	627.43	1287.07		
V / C	0.01	0.07	0.01	0.03			0.05	0.22	0.09	0.01		
d, Delay	23.62	18.26	10.69	8.40			24.02	22.15	16.10	7.82		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.72			0.79			19.97			0.19		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	316.49	136.08	456.70
Flared Storage Size				
cmx, Capacity	333.92	1088.81	375.01	1287.07
V / C	0.08	0.29	0.36	0.35
Q95, 95% Queue Length	0.26	1.21	1.62	1.62
d, Delay	16.72	8.40	19.97	7.82
LOS	C	A	C	A
dA, Approach Delay	16.72	0.79	19.97	0.19
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.76								
Worst Case Delay				27.23								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	22.00	417.00	9.00	10.00	0.00	0.00	10.00	541.00	10.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	24.18	458.24	9.89	10.99	0.00	0.00	10.99	594.51	10.99

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	24.18			10.99	0.00	0.00	10.99		
Conflicting Volume (Veh)	1128.02	1139.01	463.19	605.49			1132.97	1138.46	600.00	468.13		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1128.02	1139.01	463.19	605.49			1132.97	1138.46	600.00	468.13		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	183.08	202.91	602.96	953.25			181.66	203.06	497.24	1052.77		
Capacity	178.12	195.70	602.96	953.25			172.89	195.85	497.24	1052.77		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	24.18	458.24	9.89	10.99	0.00	0.00	10.99	594.51	10.99
cmx, Capacity	178.12	195.70	602.96	953.25			172.89	195.85	497.24	1052.77		
V / C	0.02	0.02	0.01	0.03			0.06	0.00	0.00	0.01		
d, Delay	25.95	24.13	11.71	8.87			27.23	24.79	13.65	8.46		
LOS	D	C	B	A			D	C	B	A		
dA, Approach Delay	19.56			0.44			27.23			0.15		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	24.18	468.13	10.99	10.99	605.49
Flared Storage Size						
cmx, Capacity	260.42			172.89		
V / C	0.05			0.06		
Q95, 95% Queue Length	0.16			0.20		
d, Delay	19.56			27.23		
LOS	C			D		
dA, Approach Delay	19.56	0.44		27.23	0.15	
Approach LOS	C			D		

Node 50155: 42nd & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				14.14								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	66.00	80.00	93.00	4.00	86.00	36.00	7.00	55.00	3.00	234.00	113.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	78.57	95.24	110.71	4.76	102.38	42.86	8.33	65.48	3.57	278.57	134.52	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	284.52	150.00	77.38	432.14
Left Turn Flow Rate	78.57	4.76	8.33	278.57
Right Turn Flow Rate	110.71	42.86	3.57	19.05
PLT, Proportion LT	0.28	0.03	0.11	0.64
PRT, Proportion RT	0.39	0.29	0.05	0.04
PHV, Proportion HV	1.78	1.37	1.52	0.64
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.15	-0.14	0.02	0.11

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	284.52	150.00	77.38	432.14
hd initial	3.20	3.20	3.20	3.20
x initial	0.25	0.13	0.07	0.38
hd, iteration 1	4.80	4.75	5.17	4.76
Difference, iteration 1	1.60	1.55	1.97	1.56
hd, iteration 2	5.31	5.30	5.82	5.15
Difference, iteration 2	0.51	0.55	0.65	0.39
hd, iteration 3	5.45	5.47	6.02	5.28
Difference, iteration 3	0.15	0.17	0.20	0.13
hd, iteration 4	5.50	5.52	6.08	5.32
Difference, iteration 4	0.05	0.05	0.06	0.04
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.50	5.52	6.08	5.32
x final, Degree of Utilization	0.43	0.23	0.13	0.64

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	284.52	150.00	77.38	432.14
hd, Departure Headway	5.50	5.52	6.08	5.32
x, Degree of Utilization	0.43	0.23	0.13	0.64
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.50	3.52	4.08	3.32
Capacity	653.79	651.42	591.54	676.07
Delay	12.66	10.17	9.99	17.24
LOS	B	B	A	C
Q95, 95% Queue Length				
Approach Delay	12.66	10.17	9.99	17.24
Approach LOS	B	B	A	C
Intersection Delay	14.14			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.11	
Worst Case Delay	10.19	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	7.00	47.00	30.00	1.00	64.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	9.59	64.38	41.10	1.37	87.67

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			64.38		1.37	87.67
Conflicting Volume (Veh)			53.42		218.49	48.63
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			53.42		218.49	48.63
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1565.04		774.20	1025.79
Capacity			1565.04		741.56	1025.79

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	9.59	64.38	41.10	1.37	87.67
cmx, Capacity			1565.04		741.56	1025.79
V / C			0.04		0.00	0.09
d, Delay			7.40		10.19	8.85
LOS			A		B	A
dA, Approach Delay	0.00		4.52		8.87	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.31			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	53.42	105.48	89.04
Flared Storage Size			
cmx, Capacity		1565.04	1019.78
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.29
d, Delay		7.40	8.87
LOS		A	A
dA, Approach Delay	0.00	4.52	8.87
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	18.55	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	500.00	13.00	1.00	377.00	7.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	555.56	14.44	1.11	418.89	7.78

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		14.44	1.11		
Conflicting Volume (Veh)	426.67		978.33	422.78		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	426.67		978.33	422.78		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1081.19		280.01	635.35		
Capacity	1081.19		280.01	635.35		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	555.56	14.44	1.11	418.89	7.78
cmx, Capacity	1081.19		280.01	635.35		
V / C	0.00		0.05	0.00		
d, Delay	8.33		18.55	11.36		
LOS	A		C	B		
dA, Approach Delay	0.00		18.04		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	555.56	15.56	426.67
Flared Storage Size			
cmx, Capacity	0.00	291.66	
V / C	0.00	0.05	
Q95, 95% Queue Length	0.00	0.17	
d, Delay	4.16	18.04	
LOS	A	C	
dA, Approach Delay	0.00	18.04	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	18.91	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	506.00	5.00	6.00	378.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	568.54	5.62	6.74	424.72	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		5.62	6.74		
Conflicting Volume (Veh)	430.34		1011.80	427.53		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	430.34		1011.80	427.53		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1139.95		267.47	631.46		
Capacity	1139.95		264.70	631.46		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	568.54	5.62	6.74	424.72	5.62
cmx, Capacity	1139.95		264.70	631.46		
V / C	0.01		0.02	0.01		
d, Delay	8.18		18.91	11.01		
LOS	A		C	B		
dA, Approach Delay	0.11		14.60		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.08				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	576.40	12.36	430.34
Flared Storage Size			
cmx, Capacity	1139.95	387.45	
V / C	0.51	0.03	
Q95, 95% Queue Length	2.95	0.10	
d, Delay	8.18	14.60	
LOS	A	B	
dA, Approach Delay	0.11	14.60	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.02	
Worst Case Delay	10.83	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	138.00	15.00	17.00	132.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	156.82	17.05	19.32	150.00

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			19.32	
Conflicting Volume (Veh)	353.98	165.34			173.86	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	353.98	165.34			173.86	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	647.93	834.28			1367.19	
Capacity	637.88	834.28			1367.19	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	156.82	17.05	19.32	150.00
cmx, Capacity	637.88	834.28			1367.19	
V / C	0.03	0.00			0.01	
d, Delay	10.83	9.50			7.67	
LOS	B	A			A	
dA, Approach Delay	10.83		0.00		0.88	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.12	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	173.86	169.32
Flared Storage Size			
cmx, Capacity	637.88		1367.19
V / C	0.03		0.12
Q95, 95% Queue Length	0.10		0.42
d, Delay	10.83		7.67
LOS	B		A
dA, Approach Delay	10.83	0.00	0.88
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.83	
Worst Case Delay	13.04	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	196.00	8.00	94.00	112.00	4.00	54.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	208.51	8.51	100.00	119.15	4.26	57.45

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			100.00		4.26	57.45
Conflicting Volume (Veh)			217.02		531.91	212.77
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			217.02		531.91	212.77
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1346.73		511.71	819.80
Capacity			1346.73		470.85	819.80

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	208.51	8.51	100.00	119.15	4.26	57.45
cmx, Capacity			1346.73		470.85	819.80
V / C			0.07		0.01	0.07
d, Delay			7.89		13.04	9.79
LOS			A		B	A
dA, Approach Delay	0.00		3.60		10.01	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.63			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	217.02	219.15	61.70
Flared Storage Size			
cmx, Capacity		1346.73	779.93
V / C		0.16	0.08
Q95, 95% Queue Length		0.58	0.26
d, Delay		7.89	10.01
LOS		A	B
dA, Approach Delay	0.00	3.60	10.01
Approach LOS			B

Scenario 12

Diverter at Linwood Ave& Monroe St gap open

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	69.89
Average LOS	E
V/C	0.97
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	266	72	96	337	0	89	266	59	123	487	94
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	69	19	25	88	0	23	69	15	32	127	24
Adjusted Volume	41	277	75	100	351	0	93	277	61	128	507	98

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	57796	57797	57794	57795	57800	57801	57798	57799
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	352	100	351	93	339	128	605
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.21	0.00	0.00	0.00	0.18	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57796	57797	57794	57795	57800	57801	57798	57799
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.968	1.000	1.000	1.000	0.973	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1734	1676	1705

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57796	57797	57794	57795	57800	57801	57798	57799
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	352.08	100	351.04	92.71	338.54	128.13	605.21
s, Saturation Flow Rate	1710	1725	1644	1765	1644	1734	1676	1705
c, Capacity	46	471	91	504	117	551	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.7	0.79	0.61	1.07	1.18
d1, Uniform Delay	27.17	18.58	26.45	17.83	25.59	16.19	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.33	123.54	7.74	40.30	5.06	102.26	98.11
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.92	149.99	25.58	65.89	21.25	128.26	117.66
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.32		53.16		30.84		119.51	
Approach LOS	D		D		C		F	
dI, Intersection Delay	69.89							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57796	57797	57794	57795	57800	57801	57798	57799
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	5.00	1.56	4.87	1.42	4.46	1.99	9.41
Q2, Second-term Queued	0.44	1.31	2.05	1.10	0.58	0.83	2.32	14.09
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.31	3.61	5.97	2.00	5.30	4.32	23.50
fB%, % Factor	1.90	1.64	1.74	1.65	1.84	1.67	1.71	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.36	6.29	9.86	3.67	8.87	7.39	35.36

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57796	57797	57794	57795	57800	57801	57798	57799
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.20	0.06	0.20	0.08	0.35
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57796	57797	57794	57795	57800	57801	57798	57799
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		16.34	
Average LOS		B	
V/C		0.78	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	7	1768	9	22	34	23	25	1624	10	24	26	85
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	2	475	2	6	9	6	7	437	3	6	7	23
Adjusted Volume	8	1901	10	24	37	25	27	1746	11	26	28	91

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57807	57808	57810	57806	57802	57803	57805	57811
Lanes	L	T, T	R	LTR	L	T, T	R	LTR
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	8	1901	10	85	27	1746	11	145
PLT, Proportion Left Turns	1.00	0.00	0.00	0.28	1.00	0.00	0.00	0.18
PRT, Proportion Right Turns	0.00	0.00	1.00	0.29	0.00	0.00	1.00	0.63

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57807	57808	57810	57806	57802	57803	57805	57811
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	0.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	1.000	0.971	1.000	1.000	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.617	0.950	1.000	1.000	0.894
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.961	1.000	1.000	0.850	0.915
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	1067	1710	3327	1530	1473

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57807	57808	57810	57806	57802	57803	57805	57811
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	7.53	1901.08	9.68	84.95	26.88	1746.24	10.75	145.16
s, Saturation Flow Rate	1710	3327	1530	1067	1710	3327	1530	1473
c, Capacity	29	2440	1122	116	71	2523	1160	160
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
X, Volume / Capacity	0.26	0.78	0.01	0.74	0.38	0.69	0.01	0.91
d1, Uniform Delay	58.27	9.95	4.29	51.83	55.98	7.37	3.53	52.92
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	21.30	2.54	0.01	33.71	14.55	1.59	0.01	50.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	79.57	12.49	4.31	85.54	70.54	8.96	3.54	103.60
LOS	E	B	A	F	E	A	A	F
dA, Approach Delay	12.71			85.54	9.85			103.60
Approach LOS	B			F	A			F
dI, Intersection Delay	16.34							
Intersection LOS	B							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57807	57808	57810	57806	57802	57803	57805	57811
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.25	20.70	0.09	2.74	0.87	15.55	0.09	4.79
Q2, Second-term Queued	0.04	5.12	0.01	0.72	0.13	3.57	0.01	1.90
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.12	1.66	1.51	0.31	0.22	1.70	1.55	0.39
Q, Average Back of Queue	0.29	25.83	0.10	3.46	1.00	19.12	0.10	6.69
fB%, % Factor	1.97	1.50	1.99	1.75	1.91	1.51	1.99	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	0.57	38.81	0.20	6.06	1.91	28.89	0.20	10.91

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57807	57808	57810	57806	57802	57803	57805	57811
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	17	26	26	0	17	23	23	0
Green Time End	19	114	114	13	22	114	114	13
G, Actual Green Time	2	88	88	13	5	91	91	13
gi, Effective Green Time	2	88	88	13	5	91	91	13
g/C, Green / Cycle	0.02	0.73	0.73	0.11	0.04	0.76	0.76	0.11
(v/s)i, Volume / Saturation	0.00	0.57	0.01	0.08	0.02	0.52	0.01	0.10
Critical Lane Group		Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57807	57808	57810	57806	57802	57803	57805	57811
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				S				S
Opposed by Single(S) or M				S				S
C, Cycle Length				120.00				120.00
G(s), Actual GT				13.00				13.00
g(s), Eff. perm. GT				13.00				13.00
go(s), Opposing Eff. GT				13.00				13.00
No, Number Lanes in Opp				1				1
N, Number Left Lanes				1.00				1.00
VLT, Adj. LT Flow Rate				23.66				25.81
PLT, Proportion LT in Lane				0.28				0.18
PLTo, Proportion LT in Op				0.18				0.28
LT Volume per Cycle				0.79				0.86
Vo, Opposing Flow				145.16				84.95
Volc, Adjusted Opposing F				4.84				2.83
FLUo, Opposing Lane Utili				1.00				1.00
Rpo, Opposing Platoon Ra				1.00				1.00
gf				2.20				1.95
qro, Opposing Queue Rati				0.89				0.89
gq, Opposing Queue Clear				10.55				5.67
gu				2.45				7.33
PL				0.28				0.18
de facto caused by PL >=								
EL1				1.47				1.37
EL2				5.62				2.85
gdif				8.35				3.73
fm				0.62				0.89
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.62	0.95	1.00	1.00	0.89

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				40.16								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	90	1670	113	104	228	151	193	1474	88	20	173	24
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	24	444	30	28	61	40	51	392	23	5	46	6
Adjusted Volume	96	1777	120	111	243	161	205	1568	94	21	184	26

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	96	1777	120	111	243	37	123	205	1568	94	21	184	26
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.610	1.000	1.000	1.000	0.950	1.000	1.000	0.518	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1076	3427	1515	1515	1676	3327	1500	932	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	95.74	1776.6	120.21	110.64	242.55	37.48	123.16	205.32	1568.09	93.62	21.28	184.04	25.53
s, Saturation Flow Rate	1676	3360	1515	1076	3427	1515	1515	1676	3327	1500	932	3427	1530
c, Capacity	335	1988	896	197	628	303	278	182	1664	750	171	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.29	0.89	0.13	0.56	0.39	0.12	0.44	1.13	0.94	0.12	0.12	0.29	0.09
d1, Uniform Delay	40.73	21.23	10.87	44.60	43.06	9.19	33.39	53.50	28.37	16.00	40.95	42.29	40.70
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.13	6.68	0.31	11.03	1.79	0.84	5.06	106.20	12.09	0.34	1.49	1.18	0.64
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	42.86	27.91	11.18	55.64	44.85	10.02	38.46	159.70	40.46	16.34	42.44	43.47	41.34
LOS	D	C	B	E	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.62			43.10				52.36			43.14		
Approach LOS	C			D				D			D		
dI, Intersection Delay	40.16												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.71	26.95	1.78	3.36	3.73	1.02	3.65	6.84	25.96	1.66	0.59	2.78	0.71
Q2, Second-term Queued	0.26	7.76	0.20	0.55	0.40	0.09	0.44	5.09	8.72	0.16	0.06	0.26	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.45	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	2.97	34.71	1.98	3.90	4.13	1.11	4.09	11.94	34.68	1.83	0.65	3.04	0.76
fB%, % Factor	1.78	1.50	1.84	1.73	1.72	1.90	1.72	1.55	1.50	1.85	1.94	1.77	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.27	52.08	3.63	6.75	7.10	2.11	7.04	18.46	52.04	3.37	1.26	5.39	1.47

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.08	0.10	0.07	0.02	0.08	0.12	0.47	0.06	0.02	0.05	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	57821	57822	57824	57816	57817	57819	57820	57812	57813	57815	57825	57826	57828
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				110.64							21.28		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.69							0.71		
Vo, Opposing Flow				184.04							242.55		
Volc, Adjusted Opposing F				3.38							4.45		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				1.85							3.85		
gu				20.15							18.15		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.50							1.59		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.61							0.52		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.61	1.00	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		52.42	
Average LOS		D	
V/C		0.98	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	279	1638	21	86	217	158	47	1571	50	7	244	54
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	73	427	5	22	57	41	12	409	13	2	64	14
Adjusted Volume	291	1706	22	90	226	165	49	1636	52	7	254	56

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	57845	57846	57848	57843	57839	57840	57842	57849
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	291	1706	22	480	49	1636	52	318
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.34	0.00	0.00	1.00	0.18

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	57845	57846	57848	57843	57839	57840	57842	57849
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.743	0.950	1.000	1.000	0.944
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.949	1.000	1.000	0.850	0.973
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2300	1613	3360	1471	3029

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	57845	57846	57848	57843	57839	57840	57842	57849
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	290.63	1706.25	21.88	480.21	48.96	1636.46	52.08	317.71
s, Saturation Flow Rate	1710	3327	1530	2300	1613	3360	1471	3029
c, Capacity	323	1869	859	527	149	1562	684	694
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
X, Volume / Capacity	0.9	0.91	0.03	0.91	0.33	1.05	0.08	0.46
d1, Uniform Delay	47.52	23.66	11.70	45.06	50.96	32.10	17.80	39.83
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	29.80	8.33	0.05	22.45	5.78	36.29	0.22	2.17
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	77.32	31.99	11.75	67.51	56.74	68.39	18.02	42.00
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	38.30			67.51	66.55			42.00
Approach LOS	D			E	E			D
dI, Intersection Delay	52.42							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	57845	57846	57848	57843	57839	57840	57842	57849
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.46	26.87	0.32	8.19	1.53	28.65	0.96	4.79
Q2, Second-term Queued	3.17	8.19	0.03	2.97	0.18	14.12	0.09	0.57
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.63	1.38	1.26	0.57	0.37	1.22	1.07	0.69
Q, Average Back of Queue	12.63	35.06	0.36	11.16	1.70	42.77	1.05	5.36
fB%, % Factor	1.54	1.50	1.97	1.55	1.86	1.50	1.91	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.45	52.61	0.70	17.34	3.16	64.16	2.00	8.96

Signal Timing Information								
Approach	N			E	S			W
Lane Group	57845	57846	57848	57843	57839	57840	57842	57849
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	31.5	46.6	46.6	0	31.5	58.2	58.2	0
Green Time End	54.2	114	114	27.5	42.6	114	114	27.5
G, Actual Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
gi, Effective Green Time	22.7	67.4	67.4	27.5	11.1	55.8	55.8	27.5
g/C, Green / Cycle	0.19	0.56	0.56	0.23	0.09	0.46	0.46	0.23
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.03	0.49	0.04	0.10
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	57845	57846	57848	57843	57839	57840	57842	57849
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				27.50				27.50
g(s), Eff. perm. GT				27.50				27.50
go(s), Opposing Eff. GT				27.50				27.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				89.58				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.99				0.24
Vo, Opposing Flow				317.71				480.21
Volc, Adjusted Opposing F				5.56				8.41
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.00				15.97
qro, Opposing Queue Rati				0.77				0.77
gq, Opposing Queue Clear				5.45				11.07
gu				22.05				11.53
PL				0.50				0.05
de facto caused by PL >=								
EL1				1.79				2.14
EL2				19.85				0.00
gdif				0.00				0.00
fm				0.58				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.74	0.95	1.00	1.00	0.94

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.71
Worst Case Delay	12.05
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	405.00	58.00	376.00	149.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	445.05	63.74	413.19	163.74

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		63.74		
Conflicting Volume (Veh)		495.05		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		495.05		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		574.48		
Capacity		574.48		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	445.05	63.74	413.19	163.74
cmx, Capacity		574.48		
V / C		0.11		
d, Delay		12.05		
LOS		B		
dA, Approach Delay	0.00	12.05	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	445.05	63.74	576.92
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.05	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.17	
Average LOS	B	
V/C	0.43	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	335	85	166	425
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	88	22	44	112
Adjusted Volume	89	118	353	89	175	447

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	57866	57865	57867	57869
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	442	175	447
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.20	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	57866	57865	57867	57869
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.388
fRT, Right Turn Adjustment	0.923	0.973	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1700	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	57866	57865	57867	57869
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	442.11	132	43
			175	447.37
s, Saturation Flow Rate	1627	1700	1693	1748
			832	
c, Capacity	560	755	132	331
			462	971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
X, Volume / Capacity	0.37	0.59	1.00	0.13
			0.38	0.46
d1, Uniform Delay	22.16	18.77	10.86	11.95
k, Delay Calibration	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.87	3.30	2.35	1.57
d3, Initial Queue Delay	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	0.56
PF, Progression Factor	1.00	1.00	1.00	1.00
d, Delay	24.04	22.07	13.20	13.52
LOS	C	C	B	B
dA, Approach Delay	24.04	22.07	13.43	
Approach LOS	C	C	B	
dI, Intersection Delay	18.17			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	57866	57865	57867	57869
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	8.30	2.46	6.68
Q2, Second-term Queued	0.44	1.28	0.40	0.94
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.67	1.12
Q, Average Back of Queue	4.34	9.58	2.86	7.62
fB%, % Factor	1.71	1.57	1.78	1.61
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	15.08	5.09	12.27

Signal Timing Information					
Approach	N	E	W		
Lane Group	57866	57865	57867		57869
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.26	0.08	0.06	0.26
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	57866	57865	57867		57869
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				442.11	
Volc, Adjusted Opposing Flow				11.05	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				11.78	
gu				31.22	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.87	
EL2				0.00	
gdifff				0.00	
fm				0.39	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.39	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.89	
Worst Case Delay	13.19	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	388.00	114.00	137.00	312.00	36.00	120.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	426.37	125.27	150.55	342.86	39.56	131.87

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			150.55			131.87
Conflicting Volume (Veh)			362.64			489.01
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			362.64			489.01
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			682.14			570.99
Capacity			682.14			570.99

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	426.37	125.27	150.55	342.86	39.56	131.87
cmx, Capacity			682.14			570.99
V / C			0.22			0.23
d, Delay			11.77			13.19
LOS			B			B
dA, Approach Delay	0.00		11.77	0.00		13.19
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	551.65	150.55	382.42	131.87
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.77	0.00	13.19
Approach LOS		B		B

Node 13764: Fuller & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		6.57						
				Worst Case Delay		12.75						
				Worst Case LOS		B						

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	20.00	113.00	16.00	22.00	98.00	15.00	6.00	37.00	46.00	6.00	35.00	35.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	21.74	122.83	17.39	23.91	106.52	16.30	6.52	40.22	50.00	6.52	38.04	38.04

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	21.74	122.83	17.39	23.91			6.52	40.22	50.00	6.52		
Conflicting Volume (Veh)	277.72	251.63	114.67	76.09			302.72	240.76	57.07	122.83		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	277.72	251.63	114.67	76.09			302.72	240.76	57.07	122.83		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	678.69	651.52	929.77	1535.69			645.67	662.38	1014.88	1476.81		
Capacity	604.76	637.63	929.77	1535.69			531.25	648.25	1014.88	1476.81		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	21.74	122.83	17.39	23.91	106.52	16.30	6.52	40.22	50.00	6.52	38.04	38.04
cmx, Capacity	604.76	637.63	929.77	1535.69			531.25	648.25	1014.88	1476.81		
V / C	0.04	0.19	0.02	0.02			0.01	0.06	0.05	0.00		
d, Delay	12.75	12.44	10.67	7.38			12.42	11.20	9.19	7.45		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.29			1.20			10.25			0.59		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.12						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	161.96	146.74	96.74	82.61
Flared Storage Size				
cmx, Capacity	654.95	1535.69	782.79	1476.81
V / C	0.25	0.10	0.12	0.06
Q95, 95% Queue Length	0.97	0.32	0.42	0.18
d, Delay	12.29	7.38	10.25	7.45
LOS	B	A	B	A
dA, Approach Delay	12.29	1.20	10.25	0.59
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.89								
Worst Case Delay				33.1								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	138.00	4.00	83.00	31.00	95.00	28.00	129.00	149.00	4.00	6.00	43.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	162.35	4.71	97.65	36.47	111.76	32.94	151.76	175.29	4.71	7.06	50.59

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			97.65	36.47	111.76	32.94			4.71	7.06	50.59
Conflicting Volume (Veh)	327.06			792.94	768.82	239.41	167.06			840.59	854.12	164.71
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	327.06			792.94	768.82	239.41	167.06			840.59	854.12	164.71
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1226.94			307.66	334.00	799.49	1423.08			286.87	298.12	874.60
Capacity	1226.94			252.08	285.23	799.49	1423.08			198.17	254.59	874.60

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	162.35	4.71	97.65	36.47	111.76	32.94	151.76	175.29	4.71	7.06	50.59
cmx, Capacity	1226.94			252.08	285.23	799.49	1423.08			198.17	254.59	874.60
V / C	0.12			0.39	0.13	0.14	0.02			0.02	0.03	0.06
d, Delay	8.34			33.10	31.44	10.23	7.59			23.94	19.91	9.89
LOS	A			D	D	B	A			C	C	A
dA, Approach Delay	3.92			22.46			0.69			12.08		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.22					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	167.06	134.12	111.76	360.00	62.35
Flared Storage Size						
cmx, Capacity			260.31		1423.08	570.40
V / C			0.52		0.25	0.11
Q95, 95% Queue Length			2.72		1.01	0.37
d, Delay			32.65		7.59	12.08
LOS			D		A	B
dA, Approach Delay	3.92		22.46		0.69	12.08
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.9	
Worst Case Delay	15.12	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	22.00	16.00	305.00	53.00	18.00	314.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	23.40	17.02	324.47	56.38	19.15	334.04

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	23.40	17.02			19.15	
Conflicting Volume (Veh)	725.00	352.66			380.85	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	725.00	352.66			380.85	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	390.54	695.54			1188.68	
Capacity	382.71	695.54			1188.68	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	23.40	17.02	324.47	56.38	19.15	334.04
cmx, Capacity	382.71	695.54			1188.68	
V / C	0.06	0.02			0.02	
d, Delay	15.12	10.89			8.08	
LOS	C	B			A	
dA, Approach Delay	13.34		0.00		0.44	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.16	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	40.43	380.85	353.19
Flared Storage Size			
cmx, Capacity	472.12		1188.68
V / C	0.09		0.30
Q95, 95% Queue Length	0.28		1.25
d, Delay	13.34		8.08
LOS	B		A
dA, Approach Delay	13.34	0.00	0.44
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.64	
Worst Case Delay	24.54	
Worst Case LOS	C	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	33.00	443.00	5.00	24.00	686.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	33.67	452.04	5.10	24.49	700.00	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	33.67		5.10	24.49		
Conflicting Volume (Veh)	701.02		1219.90	700.51		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	701.02		1219.90	700.51		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	891.42		200.80	435.62		
Capacity	891.42		193.21	435.62		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	33.67	452.04	5.10	24.49	700.00	1.02
cmx, Capacity	891.42		193.21	435.62		
V / C	0.04		0.03	0.06		
d, Delay	9.20		24.54	14.17		
LOS	A		C	B		
dA, Approach Delay	0.64		15.96		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	33.67	452.04	29.59	701.02
Flared Storage Size				
cmx, Capacity			358.15	
V / C			0.08	
Q95, 95% Queue Length			0.27	
d, Delay			15.96	
LOS			C	
dA, Approach Delay	0.64		15.96	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.82								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	30.00	40.00	8.00	5.00	59.00	9.00	7.00	46.00	3.00	11.00	75.00	18.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	31.91	42.55	8.51	5.32	62.77	9.57	7.45	48.94	3.19	11.70	79.79	19.15
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	77.66	59.57	110.64
Left Turn Flow Rate	31.91	5.32	7.45	11.70
Right Turn Flow Rate	8.51	9.57	3.19	19.15
PLT, Proportion LT	0.38	0.07	0.13	0.11
PRT, Proportion RT	0.10	0.12	0.05	0.17
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.02	-0.06	-0.01	-0.08

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	77.66	59.57	110.64
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.07	0.05	0.10
hd, iteration 1	4.28	4.17	4.28	4.12
Difference, iteration 1	1.08	0.97	1.08	0.92
hd, iteration 2	4.39	4.28	4.40	4.22
Difference, iteration 2	0.11	0.11	0.12	0.10
hd, iteration 3	4.41	4.29	4.41	4.23
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.41	4.29	4.41	4.23
x final, Degree of Utilization	0.10	0.09	0.07	0.13

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	77.66	59.57	110.64
hd, Departure Headway	4.41	4.29	4.41	4.23
x, Degree of Utilization	0.10	0.09	0.07	0.13
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.41	2.29	2.41	2.23
Capacity	816.54	838.71	816.18	850.32
Delay	7.90	7.73	7.76	7.87
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.90	7.73	7.76	7.87
Approach LOS	A	A	A	A
Intersection Delay	7.82			
Intersection LOS	A			

Node 14275: 37th & Monroe					
Control Type			AWSC		
Method			HCM 2000		
Average Delay			16.97		
Average LOS			C		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	57.00	22.00	53.00	190.00	1.00	71.00	127.00	168.00	14.00	224.00	150.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	62.64	24.18	58.24	208.79	1.10	78.02	139.56	184.62	15.38	246.15	164.84
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	87.91	268.13	78.02	324.18	426.37
Left Turn Flow Rate	1.10	58.24	78.02	0.00	15.38
Right Turn Flow Rate	24.18	1.10	0.00	184.62	164.84
PLT, Proportion LT	0.01	0.22	1.00	0.00	0.04
PRT, Proportion RT	0.27	0.00	0.00	0.57	0.39
PHV, Proportion HV	2.80	2.77	1.00	1.57	0.96
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.11	0.09	0.52	-0.37	-0.21

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	87.91	268.13	78.02	324.18	426.37
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.08	0.24	0.07	0.29	0.38
hd, iteration 1	5.43	5.15	6.24	5.34	4.71
Difference, iteration 1	2.23	1.95	3.04	2.14	1.51
hd, iteration 2	6.38	5.91	6.88	5.98	5.40
Difference, iteration 2	0.95	0.76	0.64	0.64	0.69
hd, iteration 3	6.76	6.18	7.16	6.25	5.63
Difference, iteration 3	0.39	0.27	0.28	0.27	0.23
hd, iteration 4	6.91	6.29	7.26	6.35	5.72
Difference, iteration 4	0.14	0.11	0.10	0.10	0.09
hd, iteration 5	6.96	6.33	7.29	6.39	5.76
Difference, iteration 5	0.06	0.04	0.04	0.04	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.96	6.33	7.29	6.39	5.76
x final, Degree of Utilizatio	0.17	0.47	0.16	0.58	0.68

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	87.91	268.13	78.02	324.18	426.37
hd, Departure Headway	6.96	6.33	7.29	6.39	5.76
x, Degree of Utilization	0.17	0.47	0.16	0.58	0.68
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.96	4.33	4.99	4.09	3.76
Capacity	517.00	568.21	492.97	563.51	624.57
Delay	11.38	14.85	11.36	17.38	20.18
LOS	B	B	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.38	14.85	16.21		20.18
Approach LOS	B	B	C		C
Intersection Delay	16.97				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.13	
Worst Case Delay	27.53	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	144.00	128.00	135.00	95.00	291.00	200.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	146.94	130.61	137.76	96.94	296.94	204.08

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	146.94		137.76	96.94		
Conflicting Volume (Veh)	501.02		823.47	398.98		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	501.02		823.47	398.98		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1073.64		345.75	653.00		
Capacity	1073.64		294.49	653.00		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	146.94	130.61	137.76	96.94	296.94	204.08
cmx, Capacity	1073.64		294.49	653.00		
V / C	0.14		0.47	0.15		
d, Delay	8.88		27.53	11.47		
LOS	A		D	B		
dA, Approach Delay	4.70		20.89		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.32				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	277.55	137.76	96.94	501.02
Flared Storage Size				
cmx, Capacity	1073.64			
V / C	0.26			
Q95, 95% Queue Length	1.04			
d, Delay	8.88			
LOS	A			
dA, Approach Delay	4.70	20.89		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.12	
Worst Case Delay	14.93	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	31.00	22.00	271.00	32.00	8.00	323.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	34.83	24.72	304.49	35.96	8.99	362.92

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	34.83	24.72			8.99	
Conflicting Volume (Veh)	703.37	322.47			340.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	703.37	322.47			340.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	406.67	723.11			1229.94	
Capacity	402.89	723.11			1229.94	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	34.83	24.72	304.49	35.96	8.99	362.92
cmx, Capacity	402.89	723.11			1229.94	
V / C	0.09	0.03			0.01	
d, Delay	14.93	10.98			7.95	
LOS	B	B			A	
dA, Approach Delay	13.29		0.00		0.19	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	59.55	340.45	371.91
Flared Storage Size			
cmx, Capacity	493.63		1229.94
V / C	0.12		0.30
Q95, 95% Queue Length	0.41		1.28
d, Delay	13.29		7.95
LOS	B		A
dA, Approach Delay	13.29	0.00	0.19
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		9.69	
Average LOS		A	
V/C		0.56	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	51	194	150	13	263	18	47	108	19	113	406	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	14	52	40	3	71	5	13	29	5	30	109	1
Adjusted Volume	55	209	161	14	283	19	51	116	20	122	437	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57896	57897	57894	57895	57900	57901	57898	57899
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	263	161	14	302	167	20	122	442
PLT, Proportion Left Turns	0.21	0.00	1.00	0.00	0.30	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57896	57897	57894	57895	57900	57901	57898	57899
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.917	1.000	0.472	1.000	0.855	1.000	0.608	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.990	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1619	1485	849	1748	1525	1530	1013	1761

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57896	57897	57894	57895	57900	57901	57898	57899
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	263.44	161.29	13.98	302.15	166.67	20.43	121.51	441.94
s, Saturation Flow Rate	1619	1485	849	1748	1525	1530	1013	1761
c, Capacity	486	446	368	757	457	459	439	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.54	0.36	0.04	0.4	0.36	0.04	0.28	0.58
d1, Uniform Delay	8.78	8.25	4.90	5.82	8.25	7.45	5.47	6.43
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	4.30	2.27	0.19	1.57	2.24	0.18	1.56	3.19
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	13.08	10.52	5.09	7.39	10.49	7.63	7.03	9.62
LOS	B	B	A	A	B	A	A	A
dA, Approach Delay	12.11		7.29		10.18		9.06	
Approach LOS	B		A		B		A	
dI, Intersection Delay	9.69							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57896	57897	57894	57895	57900	57901	57898	57899
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	1.84	1.06	0.07	1.73	1.09	0.12	0.65	2.79
Q2, Second-term Queued	0.37	0.17	0.01	0.29	0.17	0.01	0.11	0.59
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.32	0.30	0.26	0.44	0.31	0.31	0.30	0.44
Q, Average Back of Queue	2.21	1.23	0.08	2.01	1.27	0.14	0.77	3.38
fB%, % Factor	1.82	1.89	1.99	1.83	1.89	1.99	1.93	1.75
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.02	2.32	0.15	3.69	2.39	0.27	1.48	5.93

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57896	57897	57894	57895	57900	57901	57898	57899
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.16	0.11	0.02	0.17	0.11	0.01	0.12	0.25
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57896	57897	57894	57895	57900	57901	57898	57899
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	30.00		30.00		30.00		30.00	
G(s), Actual GT	9.00		13.00		9.00		13.00	
g(s), Eff. perm. GT	9.00		13.00		9.00		13.00	
go(s), Opposing Eff. GT	9.00		13.00		9.00		13.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	54.84		13.98		50.54		121.51	
PLT, Proportion LT in Lane	0.21		1.00		0.30		1.00	
PLTo, Proportion LT in Op	0.27		0.00		0.13		0.00	
LT Volume per Cycle	0.46		0.12		0.42		1.01	
Vo, Opposing Flow	166.67		441.94		263.44		302.15	
Volc, Adjusted Opposing F	1.46		3.68		2.31		2.52	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	1.32		0.00		1.46		0.00	
qro, Opposing Queue Rati	0.70		0.57		0.70		0.57	
gq, Opposing Queue Clear	0.00		1.53		0.00		0.00	
gu	7.68		11.47		7.54		13.00	
PL	0.21		1.00		0.30		1.00	
de facto caused by PL >=								
EL1	1.52		1.87		1.69		1.65	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.92		0.47		0.86		0.61	
fLT, Left Turn Adjustment	0.92	1.00	0.47	1.00	0.86	1.00	0.61	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	AWSC
Method	HCM 2000
Average Delay	25.14
Average LOS	D

Volume and Adjustments

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13.00	159.00	195.00	33.00	11.00	13.00	0.00	318.00	27.00	346.00	44.00	38.00
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flow Rate	13.68	167.37	205.26	34.74	11.58	13.68	0.00	334.74	28.42	364.21	46.32	40.00
Geometry Group	5			5			4b			5		

Saturation Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	181.05	205.26	46.32	13.68	363.16	410.53	40.00
Left Turn Flow Rate	13.68	0.00	34.74	0.00	0.00	364.21	0.00
Right Turn Flow Rate	0.00	205.26	0.00	13.68	28.42	0.00	40.00
PLT, Proportion LT	0.08	0.00	0.75	0.00	0.00	0.89	0.00
PRT, Proportion RT	0.00	1.00	0.00	1.00	0.08	0.00	1.00
PHV, Proportion HV	0.00	3.00	0.75	0.00	0.92	1.77	0.00
hLT,adj, Headway adjustment	0.50		0.50		0.20	0.50	
hRT,adj, Headway adjustment	-0.70		-0.70		-0.60	-0.70	
hHV,adj, Headway adjustment	1.70		1.70		1.70	1.70	
hadj, Headway adjustment	0.04	-0.65	0.39	-0.70	-0.03	0.47	-0.70

Departure Headway

Approach	N		E		S	W	
Lanes	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Total Lane Flow Rate	181.05	205.26	46.32	13.68	363.16	410.53	40.00
hd initial	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x initial	0.16	0.18	0.04	0.01	0.32	0.36	0.04
hd, iteration 1	5.63	4.94	6.44	5.34	5.59	6.20	5.02
Difference, iteration 1	2.43	1.74	3.24	2.14	2.39	3.00	1.82
hd, iteration 2	6.70	6.00	7.71	6.59	6.54	6.98	5.79
Difference, iteration 2	1.07	1.07	1.26	1.25	0.95	0.78	0.77
hd, iteration 3	7.05	6.36	8.21	7.10	6.85	7.30	6.11
Difference, iteration 3	0.35	0.35	0.51	0.50	0.31	0.32	0.32
hd, iteration 4	7.19	6.50	8.40	7.27	6.97	7.41	6.21
Difference, iteration 4	0.14	0.14	0.18	0.18	0.12	0.11	0.10
hd, iteration 5	7.24	6.55	8.46	7.34	7.01	7.45	6.25
Difference, iteration 5	0.05	0.05	0.07	0.07	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y	Y	Y
hd final, Departure Headway	7.24	6.55	8.46	7.34	7.01	7.45	6.25
x final, Degree of Utilization	0.36	0.37	0.11	0.03	0.71	0.85	0.07

Capacity and Level of Service

[illegible]

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.09								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	146	257	21	358	317	68	37	235	416	35	288	29
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	38	66	5	92	82	18	10	61	107	9	74	7
Adjusted Volume	151	265	22	369	327	70	38	242	429	36	297	30

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	57904	57905	57902	57903	57908	57909	57910	57906	57907
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	151	287	369	397	280	114	315	36	327
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.14	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.18	0.00	1.00	1.00	0.00	0.09

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	57904	57905	57902	57903	57908	57909	57910	57906	57907
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustmen	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.986
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1735	1753	1515	1515	1710	1775

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	57904	57905	57902	57903	57908	57909	57910	57906	57907
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	150.52	286.6	369.07	396.91	280.41	114.36	314.5	36.08	326.8
s, Saturation Flow Rate	1693	1695	1676	1735	1753	1515	1515	1710	1775
c, Capacity	282	282	373	713	331	337	286	57	395
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.53	1.01	0.99	0.56	0.85	0.34	1.1	0.63	0.83
d1, Uniform Delay	34.30	37.50	34.91	20.23	35.24	7.85	26.77	42.96	33.36
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.06	57.32	44.36	3.12	22.64	2.73	82.38	43.18	17.88
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	41.35	94.82	79.26	23.35	57.89	10.58	109.14	86.14	51.25
LOS	D	F	E	C	E	B	F	F	D
dA, Approach Delay	76.41		50.29		72.99			54.72	
Approach LOS	E		D		E			D	
dI, Intersection Delay	63.09								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	57904	57905	57902	57903	57908	57909	57910	57906	57907
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.44	7.16	9.20	7.58	6.77	2.41	7.86	0.89	7.79
Q2, Second-term Queued	0.52	4.38	4.93	1.10	2.17	0.27	6.45	0.24	2.27
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.96	11.54	14.13	8.68	8.94	2.68	14.31	1.13	10.06
fB%, % Factor	1.73	1.55	1.53	1.59	1.58	1.79	1.53	1.90	1.57
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.84	17.88	21.61	13.78	14.16	4.80	21.87	2.15	15.76

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	57904	57905	57902	57903	57908	57909	57910	57906	57907
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.09	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.18
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	57904	57905	57902	57903	57908	57909	57910	57906	57907
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	TWSC	
		Method	HCM 2000	
		dI, Average Delay	22.97	
		Worst Case Delay	65.61	
		Worst Case LOS	F	

Volume and Adjustments									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0.00	0.00	0.00	228.00	44.00	142.00	306.00	81.00	180.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	0.00	0.00	253.33	48.89	157.78	340.00	90.00	200.00

Pedestrians									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00		0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00		12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00		4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00		0.00	0.00

Capacity of Movements below Rank 1									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Rank	2	1	1	4	3	2	1	3	2
vx, Volume	0.00			253.33	48.89	157.78		90.00	200.00
Conflicting Volume (Veh)	340.00			460.56	315.56	0.00		655.56	0.00
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00		0.00	0.00
Conflicting Volume	340.00			460.56	315.56	0.00		655.56	0.00
Two-Stage Gap Acceptance				No	No			No	
Number of Storage Spaces									
cpx, Potential Capacity	1230.41			509.40	603.55	1629.70		386.68	1087.94
Capacity	1230.41			309.49	545.12	1629.70		349.24	1087.94

Critical Gap and Follow Up Time									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	4.10		6.50	6.20
tc,base,I, Base Critical Gap									
tc,base,II, Base Critical Gap									
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00		1.00	1.00
Phv, % Heavy Vehicles	0.00			3.00	0.00	1.00		1.00	1.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	1.00		0.20	0.10
G, % Grade	0.00			0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00		0.00	0.00
tc, Critical Gap	4.10			7.13	6.50	4.11		6.51	6.21
tc,I, Critical Gap (Stage I)									
tc,II, Critical Gap (Stage II)									
tf,base, Base Follow-Up Time	2.20			3.50	4.00	2.20		4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90		0.90	0.90
tf, Follow-Up Time	2.20			3.53	4.00	2.21		4.01	3.31

Delay and Level of Service by Movement									
Approach	N (Major)			E		S (Major)		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
vx, Volume	0.00	0.00	0.00	253.33	48.89	157.78	340.00	90.00	200.00
cmx, Capacity	1230.41			309.49	545.12	1629.70		349.24	1087.94
V / C	0.00			0.82	0.09	0.10		0.26	0.18
d, Delay	7.93			65.61	60.59	7.45		19.57	12.57
LOS	A			F	F	A		C	B
dA, Approach Delay	2.64			64.80		2.36		14.74	
Approach LOS				F				B	
dRank1, Rank 1 Delay	0.00					0.00			

Delay and Level of Service by Lane					
Approach	N (Major)	E	S (Major)		W
Lane	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T, R1	L1, T			T, R1
vx, Volume	0.00	302.22	157.78	340.00	290.00
Flared Storage Size					
cmx, Capacity	1230.41	332.76			656.80
V / C	0.00	0.91			0.44
Q95, 95% Queue Length	0.00	8.91			2.26
d, Delay	2.64	64.80			14.74
LOS	A	F			B
dA, Approach Delay	2.64	64.80	2.36		14.74
Approach LOS		F			B

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.35	
Average LOS		A	
V/C		0.57	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	332	42	13	37	72	80	582	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	87	11	3	10	19	21	153	3
Adjusted Volume	75	33	42	56	349	44	14	39	76	84	613	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	57913	57914	57911	57912	57917	57918	57915	57916
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	394	53	76	84	626
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.26	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.11	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	57913	57914	57911	57912	57917	57918	57915	57916
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.813	1.000	0.376	1.000	0.905	1.000	0.559	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.983	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1464	1530	663	1702	1630	1530	1006	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	57913	57914	57911	57912	57917	57918	57915	57916
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	393.68	52.63	75.79	84.21	626.32
s, Saturation Flow Rate	1464	1530	663	1702	1630	1530	1006	1759
c, Capacity	244	255	387	993	272	255	587	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.14	0.4	0.19	0.3	0.14	0.61
d1, Uniform Delay	13.49	12.85	3.41	4.07	12.92	13.15	3.41	4.85
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.67	1.39	0.78	1.19	1.59	2.96	0.51	2.71
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.16	14.24	4.20	5.25	14.50	16.11	3.92	7.56
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.77		5.12		15.45		7.13	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.35							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	57913	57914	57911	57912	57917	57918	57915	57916
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.13	0.45	0.66	0.38	4.05
Q2, Second-term Queued	0.17	0.05	0.05	0.39	0.06	0.10	0.07	0.94
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.41	0.61
Q, Average Back of Queue	1.14	0.41	0.31	2.53	0.51	0.76	0.45	4.99
fB%, % Factor	1.90	1.96	1.97	1.80	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	4.55	1.00	1.47	0.88	8.41

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	57913	57914	57911	57912	57917	57918	57915	57916
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation Flow	0.07	0.03	0.08	0.23	0.03	0.05	0.08	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	57913	57914	57911	57912	57917	57918	57915	57916
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Multiple(M)	S		S		S		S	
Opposed by Single(S) or Multiple(M)	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opposing Flow	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		13.68		84.21	
PLT, Proportion LT in Lane	0.70		1.00		0.26		1.00	
PLTo, Proportion LT in Opposing Flow	0.11		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.14		0.84	
Vo, Opposing Flow	52.63		626.32		107.37		393.68	
Volc, Adjusted Opposing Flow	0.55		6.26		1.13		3.94	
FLUo, Opposing Lane Utilization	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.19		0.00	
qro, Opposing Queue Ratio	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clearance	0.00		3.50		0.00		0.00	
gu	6.00		17.50		5.81		21.00	
PL	0.70		1.00		0.26		1.00	
de facto caused by PL >= 0.5								
EL1	1.33		2.22		1.42		1.79	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.38		0.91		0.56	
fLT, Left Turn Adjustment	0.81	1.00	0.38	1.00	0.91	1.00	0.56	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.79								
Worst Case Delay				23.36								
Worst Case LOS				C								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	20.00	6.00	30.00	248.00	2.00	14.00	66.00	52.00	11.00	415.00	21.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	20.62	6.19	30.93	255.67	2.06	14.43	68.04	53.61	11.34	427.84	21.65

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	20.62	6.19	30.93			14.43	68.04	53.61	11.34		
Conflicting Volume (Veh)	840.72	790.72	256.70	449.48			793.30	780.93	438.66	257.73		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	840.72	790.72	256.70	449.48			793.30	780.93	438.66	257.73		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	286.81	315.25	786.84	1084.96			299.24	328.67	622.42	1318.73		
Capacity	211.16	301.10	786.84	1084.96			271.81	313.91	622.42	1318.73		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	20.62	6.19	30.93	255.67	2.06	14.43	68.04	53.61	11.34	427.84	21.65
cmx, Capacity	211.16	301.10	786.84	1084.96			271.81	313.91	622.42	1318.73		
V / C	0.00	0.07	0.01	0.03			0.05	0.22	0.09	0.01		
d, Delay	22.98	17.88	10.50	8.42			23.36	21.58	15.90	7.75		
LOS	C	C	B	A			C	C	C	A		
dA, Approach Delay	16.43			0.90			19.53			0.19		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.28						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	27.84	288.66	136.08	460.82
Flared Storage Size				
cmx, Capacity	342.71	1084.96	382.28	1318.73
V / C	0.08	0.27	0.36	0.35
Q95, 95% Queue Length	0.26	1.08	1.58	1.59
d, Delay	16.43	8.42	19.53	7.75
LOS	C	A	C	A
dA, Approach Delay	16.43	0.90	19.53	0.19
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.78								
Worst Case Delay				30.28								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	27.00	426.00	9.00	9.00	0.00	0.00	10.00	589.00	14.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	29.67	468.13	9.89	9.89	0.00	0.00	10.99	647.25	15.38

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	29.67			9.89	0.00	0.00	10.99		
Conflicting Volume (Veh)	1201.65	1217.03	473.08	662.64			1208.79	1214.29	654.95	478.02		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1201.65	1217.03	473.08	662.64			1208.79	1214.29	654.95	478.02		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	163.03	182.37	595.28	907.37			161.20	183.06	462.59	1043.81		
Capacity	157.69	174.55	595.28	907.37			152.27	175.21	462.59	1043.81		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	29.67	468.13	9.89	9.89	0.00	0.00	10.99	647.25	15.38
cmx, Capacity	157.69	174.55	595.28	907.37			152.27	175.21	462.59	1043.81		
V / C	0.03	0.02	0.01	0.03			0.06	0.00	0.00	0.01		
d, Delay	28.73	26.53	11.95	9.10			30.28	27.18	14.42	8.49		
LOS	D	D	B	A			D	D	B	A		
dA, Approach Delay	21.19			0.53			30.28			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	29.67	478.02	9.89	10.99	662.64
Flared Storage Size						
cmx, Capacity	235.51			152.27		
V / C	0.06			0.06		
Q95, 95% Queue Length	0.18			0.21		
d, Delay	21.19			30.28		
LOS	C			D		
dA, Approach Delay	21.19	0.53		30.28	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	13.07		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	31.00	78.00	136.00	4.00	69.00	36.00	7.00	22.00	2.00	244.00	92.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	36.90	92.86	161.90	4.76	82.14	42.86	8.33	26.19	2.38	290.48	109.52	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	129.76	36.90	419.05
Left Turn Flow Rate	36.90	4.76	8.33	290.48
Right Turn Flow Rate	161.90	42.86	2.38	19.05
PLT, Proportion LT	0.13	0.04	0.23	0.69
PRT, Proportion RT	0.56	0.33	0.06	0.05
PHV, Proportion HV	2.07	1.27	2.13	0.69
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.27	-0.17	0.04	0.12

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	129.76	36.90	419.05
hd initial	3.20	3.20	3.20	3.20
x initial	0.26	0.12	0.03	0.37
hd, iteration 1	4.58	4.65	5.14	4.70
Difference, iteration 1	1.38	1.45	1.94	1.50
hd, iteration 2	5.01	5.10	5.73	5.01
Difference, iteration 2	0.43	0.45	0.58	0.31
hd, iteration 3	5.11	5.23	5.88	5.10
Difference, iteration 3	0.10	0.13	0.15	0.10
hd, iteration 4	5.14	5.26	5.92	5.13
Difference, iteration 4	0.03	0.03	0.04	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	5.14	5.26	5.92	5.13
x final, Degree of Utilization	0.42	0.19	0.06	0.60

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	291.67	129.76	36.90	419.05
hd, Departure Headway	5.14	5.26	5.92	5.13
x, Degree of Utilization	0.42	0.19	0.06	0.60
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	3.14	3.26	3.92	3.13
Capacity	699.26	683.28	607.81	701.41
Delay	11.77	9.49	9.30	15.43
LOS	B	A	A	C
Q95, 95% Queue Length				
Approach Delay	11.77	9.49	9.30	15.43
Approach LOS	B	A	A	C
Intersection Delay	13.07			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.11	
Worst Case Delay	10.12	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	9.00	45.00	30.00	2.00	62.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	12.33	61.64	41.10	2.74	84.93

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			61.64		2.74	84.93
Conflicting Volume (Veh)			50.68		208.90	44.52
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			50.68		208.90	44.52
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1568.62		783.97	1031.15
Capacity			1568.62		752.40	1031.15

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	12.33	61.64	41.10	2.74	84.93
cmx, Capacity			1568.62		752.40	1031.15
V / C			0.04		0.00	0.08
d, Delay			7.39		10.12	8.82
LOS			A		B	A
dA, Approach Delay	0.00		4.43		8.86	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.30			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	50.68	102.74	87.67
Flared Storage Size			
cmx, Capacity		1568.62	1019.35
V / C		0.07	0.09
Q95, 95% Queue Length		0.21	0.28
d, Delay		7.39	8.86
LOS		A	A
dA, Approach Delay	0.00	4.43	8.86
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.4	
Worst Case Delay	19.06	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	0.00	478.00	18.00	2.00	409.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	0.00	531.11	20.00	2.22	454.44	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	0.00		20.00	2.22		
Conflicting Volume (Veh)	461.11		988.89	457.78		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	461.11		988.89	457.78		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1049.38		276.00	607.20		
Capacity	1049.38		276.00	607.20		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	0.00	531.11	20.00	2.22	454.44	6.67
cmx, Capacity	1049.38		276.00	607.20		
V / C	0.00		0.07	0.00		
d, Delay	8.43		19.06	11.94		
LOS	A		C	B		
dA, Approach Delay	0.00		18.35		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	531.11	22.22	461.11
Flared Storage Size			
cmx, Capacity	0.00	291.92	
V / C	0.00	0.08	
Q95, 95% Queue Length	0.00	0.25	
d, Delay	4.22	18.35	
LOS	A	C	
dA, Approach Delay	0.00	18.35	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.26	
Worst Case Delay	23.19	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	463.00	36.00	6.00	411.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	38.20	520.22	40.45	6.74	461.80	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	38.20		40.45	6.74		
Conflicting Volume (Veh)	466.29		1060.67	464.04		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	466.29		1060.67	464.04		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1105.74		250.13	602.29		
Capacity	1105.74		237.67	602.29		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	38.20	520.22	40.45	6.74	461.80	4.49
cmx, Capacity	1105.74		237.67	602.29		
V / C	0.03		0.17	0.01		
d, Delay	8.37		23.19	14.02		
LOS	A		C	B		
dA, Approach Delay	0.57		21.88		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.42				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	558.43	47.19	466.29
Flared Storage Size			
cmx, Capacity	1105.74	260.18	
V / C	0.51	0.18	
Q95, 95% Queue Length	2.93	0.65	
d, Delay	8.37	21.88	
LOS	A	C	
dA, Approach Delay	0.57	21.88	0.00
Approach LOS		C	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.08	
Worst Case Delay	10.13	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	18.00	0.00	119.00	15.00	11.00	84.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	20.45	0.00	135.23	17.05	12.50	95.45

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	20.45	0.00			12.50	
Conflicting Volume (Veh)	264.20	143.75			152.27	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	264.20	143.75			152.27	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	729.18	858.15			1392.55	
Capacity	722.24	858.15			1392.55	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	20.45	0.00	135.23	17.05	12.50	95.45
cmx, Capacity	722.24	858.15			1392.55	
V / C	0.03	0.00			0.01	
d, Delay	10.13	9.34			7.61	
LOS	B	A			A	
dA, Approach Delay	10.13		0.00		0.88	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.07	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	20.45	152.27	107.95
Flared Storage Size			
cmx, Capacity	722.24		1392.55
V / C	0.03		0.08
Q95, 95% Queue Length	0.09		0.25
d, Delay	10.13		7.61
LOS	B		A
dA, Approach Delay	10.13	0.00	0.88
Approach LOS	B		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.75	
Worst Case Delay	13	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	198.00	8.00	90.00	116.00	4.00	54.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	210.64	8.51	95.74	123.40	4.26	57.45

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			95.74		4.26	57.45
Conflicting Volume (Veh)			219.15		529.79	214.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			219.15		529.79	214.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1344.31		513.16	817.56
Capacity			1344.31		473.75	817.56

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	210.64	8.51	95.74	123.40	4.26	57.45
cmx, Capacity			1344.31		473.75	817.56
V / C			0.07		0.01	0.07
d, Delay			7.88		13.00	9.80
LOS			A		B	A
dA, Approach Delay	0.00		3.44		10.02	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.61			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	219.15	219.15	61.70
Flared Storage Size			
cmx, Capacity		1344.31	778.59
V / C		0.16	0.08
Q95, 95% Queue Length		0.58	0.26
d, Delay		7.88	10.02
LOS		A	B
dA, Approach Delay	0.00	3.44	10.02
Approach LOS			B

Scenario 13

Traffic Calming on Monroe, signal at Harrison/42nd, diverters at Linwood Ave and OR 224 *[Refinement 1]*

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	71.6
Average LOS	E
V/C	1
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	257	79	96	390	2	88	254	65	125	522	99
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	102	1	23	66	17	33	136	26
Adjusted Volume	41	268	82	100	406	2	92	265	68	130	544	103

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	20616	20617	20614	20615	20620	20621	20618	20619
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	350	100	408	92	332	130	647
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.24	0.00	0.01	0.00	0.20	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	20616	20617	20614	20615	20620	20621	20618	20619
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	0.999	1.000	0.969	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1719	1644	1763	1644	1728	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	20616	20617	20614	20615	20620	20621	20618	20619
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	350	100	408.33	91.67	332.29	130.21	646.88
s, Saturation Flow Rate	1710	1719	1644	1763	1644	1728	1676	1706
c, Capacity	46	461	91	535	117	540	120	545
g/C, Green / Cycle	0.03	0.27	0.06	0.3	0.07	0.31	0.07	0.32
X, Volume / Capacity	0.89	0.76	1.1	0.76	0.78	0.62	1.09	1.19
d1, Uniform Delay	27.17	18.85	26.45	17.67	25.57	16.39	26.00	19.05
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	11.21	123.54	9.90	39.06	5.18	107.64	101.28
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.30	0.07	0.31	0.07	0.32
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	30.06	149.99	27.57	64.62	21.57	133.64	120.33
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	40.40		51.65		30.88		122.56	
Approach LOS	D		D		C		F	
dI, Intersection Delay	71.6							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	20616	20617	20614	20615	20620	20621	20618	20619
g/C, Green / Cycle	0.03	0.27	0.06	0.30	0.07	0.31	0.07	0.32
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	5.00	1.56	5.76	1.40	4.40	2.03	10.06
Q2, Second-term Queued	0.44	1.37	2.05	1.55	0.56	0.83	2.51	15.50
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.53	0.18	0.53	0.19	0.54
Q, Average Back of Queue	1.07	6.38	3.61	7.31	1.96	5.23	4.54	25.56
fB%, % Factor	1.90	1.64	1.74	1.62	1.84	1.68	1.70	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.46	6.29	11.81	3.60	8.76	7.72	38.42

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	20616	20617	20614	20615	20620	20621	20618	20619
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	29	37	0	8	29	34.5	0	7.1
Green Time End	30.5	52	3.1	25	33	52	4	25
G, Actual Green Time	1.5	15	3.1	17	4	17.5	4	17.9
gi, Effective Green Time	1.5	15	3.1	17	4	17.5	4	17.9
g/C, Green / Cycle	0.03	0.27	0.06	0.3	0.07	0.31	0.07	0.32
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.19	0.08	0.38
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	20616	20617	20614	20615	20620	20621	20618	20619
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.02	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1815	40	1678	14	93
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	488	11	451	4	25
Adjusted Volume	1952	43	1804	15	100

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	20626	20625	20622	20624	20628
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1952	43	1804	15	100
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	20626	20625	20622	20624	20628
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	20626	20625	20622	20624	20628
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1951.61	43.01	1804.3	15.05	100
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.68	0.01	0.55
d1, Uniform Delay	5.80	48.15	5.24	2.42	50.03
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.83	3.05	1.41	0.02	11.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.63	51.19	6.65	2.44	61.51
LOS	A	D	A	A	E
dA, Approach Delay	7.63	51.19	6.62		61.51
Approach LOS	A	D	A		E
dI, Intersection Delay	9.02				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	20626	20625	20622	20624	20628
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.53	1.30	13.80	0.10	3.15
Q2, Second-term Queued	4.43	0.13	3.50	0.02	0.49
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.96	1.43	17.30	0.12	3.64
fB%, % Factor	1.51	1.88	1.52	1.99	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	31.60	2.69	26.22	0.24	6.34

Signal Timing Information					
Approach	N	E	S		W
Lane Group	20626	20625	20622	20624	20628
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.59	0.03	0.54	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	20626	20625	20622	20624	20628
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.58								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	104	1669	162	90	204	176	207	1481	93	25	133	24
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	28	444	43	24	54	47	55	394	25	7	35	6
Adjusted Volume	111	1776	172	96	217	187	220	1576	99	27	141	26

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	111	1776	172	96	217	44	144	220	1576	99	27	141	26
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.681	1.000	1.000	1.000	0.950	1.000	1.000	0.557	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1202	3427	1515	1515	1676	3327	1500	1003	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	110.64	1775.53	172.34	95.74	217.02	43.69	143.55	220.21	1575.53	98.94	26.6	141.49	25.53
s, Saturation Flow Rate	1676	3360	1515	1202	3427	1515	1515	1676	3327	1500	1003	3427	1530
c, Capacity	335	1988	896	220	628	303	278	182	1664	750	184	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.33	0.89	0.19	0.43	0.35	0.14	0.52	1.21	0.95	0.13	0.14	0.23	0.09
d1, Uniform Delay	41.11	21.21	11.29	43.48	42.72	9.23	33.89	53.50	28.49	16.06	41.11	41.74	40.70
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.62	6.65	0.48	6.13	1.50	1.00	6.73	135.53	12.64	0.36	1.65	0.83	0.64
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.73	27.86	11.77	49.61	44.23	10.22	40.62	189.03	41.13	16.42	42.76	42.57	41.34
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.37			41.25				57.03			42.43		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.58												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.16	26.92	2.65	2.83	3.31	1.20	4.32	7.34	26.19	1.77	0.74	2.11	0.71
Q2, Second-term Queued	0.32	7.74	0.31	0.36	0.34	0.10	0.59	6.59	8.93	0.17	0.07	0.19	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.48	0.64	0.61	0.57	0.42	1.27	1.14	0.43	0.64	0.57
Q, Average Back of Queue	3.48	34.65	2.95	3.20	3.65	1.30	4.91	13.93	35.13	1.94	0.82	2.30	0.76
fB%, % Factor	1.75	1.50	1.78	1.76	1.74	1.89	1.69	1.53	1.50	1.84	1.92	1.82	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.08	52.00	5.25	5.64	6.35	2.45	8.28	21.33	52.71	3.57	1.57	4.17	1.47

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.53	0.11	0.08	0.06	0.03	0.09	0.13	0.47	0.07	0.03	0.04	0.02
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	20638	20639	20641	20633	20634	20636	20637	20629	20630	20632	20642	20643	20645
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				95.74							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.19							0.89		
Vo, Opposing Flow				141.49							217.02		
Volc, Adjusted Opposing F				2.60							3.98		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.43							2.97		
gu				21.57							19.03		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.44							1.55		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.68							0.56		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	1.00	1.00	1.00	0.95	1.00	1.00	0.56	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		53.24	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	266	1649	22	96	236	95	55	1639	42	7	298	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	69	429	6	25	61	25	14	427	11	2	78	15
Adjusted Volume	277	1718	23	100	246	99	57	1707	44	7	310	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	20662	20663	20665	20660	20656	20657	20659	20666
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	277	1718	23	445	57	1707	44	376
PLT, Proportion Left Turns	1.00	0.00	0.00	0.22	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.22	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	20662	20663	20665	20660	20656	20657	20659	20666
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.681	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.967	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2148	1613	3360	1471	3046

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	20662	20663	20665	20660	20656	20657	20659	20666
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	277.08	1717.71	22.92	444.79	57.29	1707.29	43.75	376.04
s, Saturation Flow Rate	1710	3327	1530	2148	1613	3360	1471	3046
c, Capacity	309	1897	872	474	149	1618	709	673
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.9	0.91	0.03	0.94	0.38	1.05	0.06	0.56
d1, Uniform Delay	48.05	22.93	11.26	45.94	51.23	31.10	16.61	41.56
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	30.41	7.71	0.06	28.42	7.32	38.45	0.17	3.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	78.46	30.64	11.32	74.36	58.56	69.55	16.78	44.89
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.99			74.36	67.92			44.89
Approach LOS	D			E	E			D
dI, Intersection Delay	53.24							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	20662	20663	20665	20660	20656	20657	20659	20666
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.03	26.73	0.33	7.65	1.80	29.89	0.78	5.85
Q2, Second-term Queued	3.02	7.97	0.03	3.08	0.23	15.09	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.05	34.70	0.37	10.73	2.02	44.98	0.85	6.67
fB%, % Factor	1.54	1.50	1.96	1.56	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.62	52.07	0.72	16.72	3.71	67.48	1.64	10.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	20662	20663	20665	20660	20656	20657	20659	20666
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.21	0.04	0.51	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	20662	20663	20665	20660	20656	20657	20659	20666
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				100.00				7.29
PLT, Proportion LT in Lane				0.22				0.02
PLTo, Proportion LT in Op				0.02				0.22
LT Volume per Cycle				3.33				0.24
Vo, Opposing Flow				376.04				444.79
Volc, Adjusted Opposing F				6.58				7.79
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.52				9.94
gu				18.98				11.26
PL				0.65				0.04
de facto caused by PL >=								
EL1				1.91				2.06
EL2				26.51				0.00
gdif				0.00				0.00
fm				0.45				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.63
Worst Case Delay	12.32
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	434.00	54.00	395.00	170.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	476.92	59.34	434.07	186.81

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		59.34		
Conflicting Volume (Veh)		527.47		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		527.47		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		550.72		
Capacity		550.72		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	476.92	59.34	434.07	186.81
cmx, Capacity		550.72		
V / C		0.11		
d, Delay		12.32		
LOS		B		
dA, Approach Delay	0.00	12.32	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	476.92	59.34	620.88
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.32	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	19.19	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	384	85	166	456
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	101	22	44	120
Adjusted Volume	89	118	404	89	175	480

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	20683	20682	20684	20686
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	494	175	480
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	20683	20682	20684	20686
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.339
fRT, Right Turn Adjustment	0.923	0.976	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1705	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	20683	20682	20684		20686
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	493.68	132	43	480
			175		
s, Saturation Flow Rate	1627	1705	1693	604	1748
			757		
c, Capacity	560	758	132	289	971
			420		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.65	1.00	0.15	0.49
			0.42		
d1, Uniform Delay	22.16	19.55	11.34		12.25
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.32	3.01		1.80
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.87	14.35		14.05
LOS	C	C	B		B
dA, Approach Delay	24.04	23.87	14.13		
Approach LOS	C	C	B		
dI, Intersection Delay	19.19				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	20683	20682	20684	20686
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.65	2.52	7.35
Q2, Second-term Queued	0.44	1.67	0.44	1.08
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.62	1.12
Q, Average Back of Queue	4.34	11.33	2.96	8.43
fB%, % Factor	1.71	1.55	1.78	1.59
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	17.58	5.26	13.42

Signal Timing Information					
Approach	N	E	W		
Lane Group	20683	20682	20684		20686
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.29	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	20683	20682	20684		20686
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				493.68	
Volc, Adjusted Opposing Flow				12.34	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				14.40	
gu				28.60	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.96	
EL2				0.00	
gdifff				0.00	
fm				0.34	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.34	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.89	
Worst Case Delay	11.71	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	395.00	43.00	102.00	316.00	31.00	53.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	434.07	47.25	112.09	347.25	34.07	58.24

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			112.09			58.24
Conflicting Volume (Veh)			364.29			457.69
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			364.29			457.69
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			680.69			594.85
Capacity			680.69			594.85

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	434.07	47.25	112.09	347.25	34.07	58.24
cmx, Capacity			680.69			594.85
V / C			0.16			0.10
d, Delay			11.33			11.71
LOS			B			B
dA, Approach Delay	0.00		11.33	0.00		11.71
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	481.32	112.09	381.32	58.24
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.33	0.00	11.71
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.98								
Worst Case Delay				13.01								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	124.00	22.00	71.00	20.00	15.00	8.00	35.00	47.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	25.00	134.78	23.91	77.17	21.74	16.30	8.70	38.04	51.09	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	25.00	134.78	23.91	77.17			8.70	38.04	51.09	5.43		
Conflicting Volume (Veh)	264.13	227.72	29.89	32.61			298.91	227.72	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	264.13	227.72	29.89	32.61			298.91	227.72	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	692.74	671.74	1036.06	1592.47			649.41	673.49	1057.68	1585.26		
Capacity	604.05	636.21	1036.06	1592.47			510.29	637.87	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	25.00	134.78	23.91	77.17	21.74	16.30	8.70	38.04	51.09	5.43	16.30	16.30
cmx, Capacity	604.05	636.21	1036.06	1592.47			510.29	637.87	1057.68	1585.26		
V / C	0.04	0.21	0.02	0.05			0.02	0.06	0.05	0.00		
d, Delay	13.01	12.71	10.53	7.38			12.71	11.30	9.06	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.47			4.94			10.26			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.37						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	183.70	115.22	97.83	38.04
Flared Storage Size				
cmx, Capacity	664.79	1592.47	782.71	1585.26
V / C	0.28	0.07	0.12	0.02
Q95, 95% Queue Length	1.12	0.23	0.43	0.07
d, Delay	12.47	7.38	10.26	7.28
LOS	B	A	B	A
dA, Approach Delay	12.47	4.94	10.26	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.52								
Worst Case Delay				36.83								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	147.00	7.00	84.00	36.00	89.00	32.00	128.00	149.00	6.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	172.94	8.24	98.82	42.35	104.71	37.65	150.59	175.29	7.06	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			98.82	42.35	104.71	37.65			7.06	7.06	54.12
Conflicting Volume (Veh)	325.88			813.53	791.18	238.24	181.18			860.59	874.71	177.06
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	325.88			813.53	791.18	238.24	181.18			860.59	874.71	177.06
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1228.17			297.99	324.22	800.70	1406.33			278.10	290.02	860.86
Capacity	1228.17			241.89	275.65	800.70	1406.33			189.33	246.57	860.86

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adj	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	172.94	8.24	98.82	42.35	104.71	37.65	150.59	175.29	7.06	7.06	54.12
cmx, Capacity	1228.17			241.89	275.65	800.70	1406.33			189.33	246.57	860.86
V / C	0.12			0.41	0.15	0.13	0.03			0.04	0.03	0.06
d, Delay	8.33			36.83	35.01	10.17	7.63			25.02	20.60	10.18
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.75			25.17			0.79			12.80		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	181.18	141.18	104.71	363.53	68.24
Flared Storage Size						
cmx, Capacity			251.12		1406.33	529.88
V / C			0.56		0.26	0.13
Q95, 95% Queue Length			3.14		1.04	0.44
d, Delay			36.29		7.63	12.80
LOS			E		A	B
dA, Approach Delay	3.75		25.17		0.79	12.80
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.23	
Worst Case Delay	16.2	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	30.00	24.00	316.00	53.00	24.00	332.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	31.91	25.53	336.17	56.38	25.53	353.19

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	31.91	25.53			25.53	
Conflicting Volume (Veh)	768.62	364.36			392.55	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	768.62	364.36			392.55	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	368.12	685.13			1176.98	
Capacity	358.04	685.13			1176.98	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	31.91	25.53	336.17	56.38	25.53	353.19
cmx, Capacity	358.04	685.13			1176.98	
V / C	0.09	0.04			0.02	
d, Delay	16.20	11.40			8.13	
LOS	C	B			A	
dA, Approach Delay	14.06		0.00		0.55	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.22	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	57.45	392.55	378.72
Flared Storage Size			
cmx, Capacity	454.47		1176.98
V / C	0.13		0.32
Q95, 95% Queue Length	0.43		1.40
d, Delay	14.06		8.13
LOS	B		A
dA, Approach Delay	14.06	0.00	0.55
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.63	
Worst Case Delay	28.26	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	35.00	487.00	4.00	25.00	758.00	0.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	35.71	496.94	4.08	25.51	773.47	0.00

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	35.71		4.08	25.51		
Conflicting Volume (Veh)	773.47		1341.84	773.47		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	773.47		1341.84	773.47		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	837.49		169.49	395.56		
Capacity	837.49		162.26	395.56		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	35.71	496.94	4.08	25.51	773.47	0.00
cmx, Capacity	837.49		162.26	395.56		
V / C	0.04		0.03	0.06		
d, Delay	9.49		28.26	15.17		
LOS	A		D	C		
dA, Approach Delay	0.64		16.98		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	35.71	496.94	29.59	773.47
Flared Storage Size				
cmx, Capacity			330.09	
V / C			0.09	
Q95, 95% Queue Length			0.29	
d, Delay			16.98	
LOS			C	
dA, Approach Delay	0.64		16.98	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.3		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	2.00	49.00	2.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	2.13	52.13	2.13	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	2.13	14.89
PLT, Proportion LT	0.27	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.04	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.00	3.82	4.01	3.84
Difference, iteration 1	0.80	0.62	0.81	0.64
hd, iteration 2	4.03	3.88	4.04	3.90
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.88	4.04	3.90
x final, Degree of Utilization	0.09	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd, Departure Headway	4.03	3.88	4.04	3.90
x, Degree of Utilization	0.09	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.88	2.04	1.90
Capacity	893.72	926.32	891.39	923.35
Delay	7.44	6.94	7.31	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.31	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.3			
Intersection LOS	A			

Node 14275: 37th & Monroe												
			Control Type		AWSC							
			Method		HCM 2000							
			Average Delay		13.74							
			Average LOS		B							

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	87.00	51.00	33.00	173.00	1.00	45.00	105.00	181.00	15.00	122.00	165.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	95.60	56.04	36.26	190.11	1.10	49.45	115.38	198.90	16.48	134.07	181.32
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	151.65	227.47	49.45	314.29	331.87
Left Turn Flow Rate	0.00	36.26	49.45	0.00	16.48
Right Turn Flow Rate	56.04	1.10	0.00	198.90	181.32
PLT, Proportion LT	0.00	0.16	1.00	0.00	0.05
PRT, Proportion RT	0.37	0.00	0.00	0.63	0.55
PHV, Proportion HV	3.11	2.83	1.00	1.63	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.17	0.08	0.52	-0.42	-0.30

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	151.65	227.47	49.45	314.29	331.87
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.13	0.20	0.04	0.28	0.29
hd, iteration 1	5.10	5.11	6.07	5.13	4.63
Difference, iteration 1	1.90	1.91	2.87	1.93	1.43
hd, iteration 2	5.84	5.79	6.63	5.69	5.27
Difference, iteration 2	0.73	0.68	0.56	0.55	0.65
hd, iteration 3	6.12	6.02	6.86	5.91	5.48
Difference, iteration 3	0.28	0.24	0.23	0.23	0.21
hd, iteration 4	6.22	6.12	6.94	5.99	5.56
Difference, iteration 4	0.10	0.09	0.08	0.08	0.08
hd, iteration 5	6.26	6.15	6.97	6.02	5.59
Difference, iteration 5	0.04	0.03	0.03	0.03	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.26	6.15	6.97	6.02	5.59
x final, Degree of Utilizatio	0.26	0.39	0.10	0.53	0.52

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	151.65	227.47	49.45	314.29	331.87
hd, Departure Headway	6.26	6.15	6.97	6.02	5.59
x, Degree of Utilization	0.26	0.39	0.10	0.53	0.52
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.26	4.15	4.67	3.72	3.59
Capacity	574.61	585.34	515.95	597.27	642.99
Delay	11.48	13.00	10.41	15.21	14.39
LOS	B	B	B	C	B
Q95, 95% Queue Length					
Approach Delay	11.48	13.00	14.55		14.39
Approach LOS	B	B	B		B
Intersection Delay	13.74				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.55	
Worst Case Delay	28.4	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	150.00	149.00	143.00	106.00	248.00	206.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	153.06	152.04	145.92	108.16	253.06	210.20

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	153.06		145.92	108.16		
Conflicting Volume (Veh)	463.27		816.33	358.16		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	463.27		816.33	358.16		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1108.59		349.11	688.36		
Capacity	1108.59		296.18	688.36		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	153.06	152.04	145.92	108.16	253.06	210.20
cmx, Capacity	1108.59		296.18	688.36		
V / C	0.14		0.49	0.16		
d, Delay	8.77		28.40	11.20		
LOS	A		D	B		
dA, Approach Delay	4.40		21.08		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.33				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	305.10	145.92	108.16	463.27
Flared Storage Size				
cmx, Capacity	1108.59			
V / C	0.28			
Q95, 95% Queue Length	1.13			
d, Delay	8.77			
LOS	A			
dA, Approach Delay	4.40	21.08		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.34	
Worst Case Delay	15.97	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	295.00	30.00	9.00	337.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	331.46	33.71	10.11	378.65

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	747.19	348.31			365.17	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	747.19	348.31			365.17	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	383.34	699.45			1204.54	
Capacity	379.20	699.45			1204.54	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	331.46	33.71	10.11	378.65
cmx, Capacity	379.20	699.45			1204.54	
V / C	0.12	0.04			0.01	
d, Delay	15.97	11.62			8.01	
LOS	C	B			A	
dA, Approach Delay	14.45		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	365.17	388.76
Flared Storage Size			
cmx, Capacity	451.36		1204.54
V / C	0.16		0.32
Q95, 95% Queue Length	0.55		1.41
d, Delay	14.45		8.01
LOS	B		A
dA, Approach Delay	14.45	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.6	
Average LOS		B	
V/C		0.63	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	138	123	184	1	251	3	0	107	62	115	438	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	33	49	0	67	1	0	29	17	31	118	1
Adjusted Volume	148	132	198	1	270	3	0	115	67	124	471	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	20713	20714	20711	20712	20717	20718	20715	20716
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	281	198	1	273	115	67	124	476
PLT, Proportion Left Turns	0.53	0.00	1.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.01	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	20713	20714	20711	20712	20717	20718	20715	20716
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.815	1.000	0.434	1.000	1.000	1.000	0.624	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.998	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1439	1485	781	1762	1782	1530	1040	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	20713	20714	20711	20712	20717	20718	20715	20716
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	280.65	197.85	1.08	273.12	115.05	66.67	123.66	476.34
s, Saturation Flow Rate	1439	1485	781	1762	1782	1530	1040	1762
c, Capacity	432	446	338	763	535	459	451	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.65	0.44	0	0.36	0.22	0.15	0.27	0.62
d1, Uniform Delay	9.13	8.48	4.82	5.70	7.86	7.68	5.47	6.60
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.41	3.18	0.02	1.31	0.92	0.67	1.50	3.83
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.54	11.66	4.84	7.01	8.78	8.35	6.97	10.43
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.52		7.00		8.62		9.71	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.6							
Intersection LOS	B							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	20713	20714	20711	20712	20717	20718	20715	20716
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.03	1.33	0.01	1.53	0.72	0.41	0.66	3.08
Q2, Second-term Queued	0.53	0.24	0.00	0.24	0.09	0.05	0.11	0.71
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.29	0.30	0.25	0.44	0.34	0.31	0.30	0.44
Q, Average Back of Queue	2.57	1.57	0.01	1.77	0.81	0.46	0.78	3.80
fB%, % Factor	1.80	1.87	2.00	1.85	1.93	1.96	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.62	2.93	0.01	3.28	1.56	0.90	1.50	6.58

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	20713	20714	20711	20712	20717	20718	20715	20716
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.16	0.06	0.04	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	20713	20714	20711	20712	20717	20718	20715	20716
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	148.39		1.08				123.66	
PLT, Proportion LT in Lane	0.53		1.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.24		0.01				1.03	
Vo, Opposing Flow	115.05		476.34				273.12	
Volc, Adjusted Opposing F	1.01		3.97				2.28	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.12				0.00	
gu	9.00		10.88				13.00	
PL	0.53		1.00				1.00	
de facto caused by PL >=								
EL1	1.43		1.93				1.60	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.82		0.43				0.62	
fLT, Left Turn Adjustment	0.82	1.00	0.43	1.00	1.00	1.00	0.62	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	16.17
Average LOS	B
V/C	0.28
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	164	194	58	0	10	42	174	24	534	68	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	43	51	15	0	3	11	46	6	141	18	0
Adjusted Volume	14	173	204	61	0	11	44	183	25	562	72	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	20722	20723	20724	20719	20720	20721	20728	20725	20727
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	186	153	51	34	27	11	253	562	72
PLT, Proportion Left Turns	0.07	0.00	0.00	1.00	1.00	0.00	0.17	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	1.00	0.10	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	20722	20723	20724	20719	20720	20721	20728	20725		20727
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustme	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.975	1.000	1.000	0.950	0.750	1.000	0.932	0.950	0.792	1.000
fRT, Right Turn Adjustmen	1.000	0.850	0.850	1.000	1.000	0.850	0.987	1.000		1.000
flpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1755	1485	1485	1710	1350	1485	1639	1676	1398	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	20722	20723	20724	20719	20720	20721	20728	20725		20727
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	186.32	153.16	51.05	33.58	27.47	10.53	252.63	335	227	71.58
s, Saturation Flow Rate	1755	1485	1485	1710	1350	1485	1639	562		1800
								1676	1398	
c, Capacity	556	470	248	114	382	421	519	1506		690
								335	443	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	778		0.38
								0.20	0.32	
X, Volume / Capacity	0.34	0.33	0.21	0.29	0.07	0.03	0.49	0.52		0.1
								1.00	0.51	
d1, Uniform Delay	15.67	11.71	5.39	14.66	7.08	15.52	16.56	0.72		11.88
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	10.58		0.50
d2, Incremental Delay	1.62	1.84	1.88	6.46	0.36	0.11	3.24	0.50		0.30
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.75		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		1.00
d, Delay	17.30	13.55	7.27	21.12	7.44	15.63	19.80	1.00		12.18
LOS	B	B	A	C	A	B	B	16.34		B
dA, Approach Delay	14.52			15.06			19.80	15.87		
Approach LOS	B			B			B	B		
dI, Intersection Delay	16.17									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.57	0.51	0.32	0.19	0.44	0.47	0.54	0.72	0.66
Q, Average Back of Queue	2.66	2.19	0.82	0.61	0.37	0.14	3.91	8.99	0.84
fB%, % Factor	1.79	1.82	1.92	1.94	1.96	1.99	1.73	1.58	1.92
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	4.77	3.99	1.57	1.19	0.72	0.28	6.76	14.22	1.62

Signal Timing Information

Approach	N			E			S	W		
Lane Group	20722	20723	20724	20719	20720	20721	20728	20725		20727
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.11	0.10	0.03	0.02	0.02	0.01	0.15	0.20	0.16	0.04
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	20722	20723	20724	20719	20720	20721	20728	20725	20727	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				61.05		44.21		562.11	
PLT, Proportion LT in Lane	0.07				1.00		0.17		1.00	
PLTo, Proportion LT in Opposing Flow	0.17				0.00		0.04		0.00	
LT Volume per Cycle	0.23				1.02		0.74		9.37	
Vo, Opposing Flow	252.63				71.58		186.32		10.53	
Volc, Adjusted Opposing Flow	4.21				1.19		3.26		0.18	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		4.34		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	4.87				0.00		0.00		0.00	
gu	10.47				17.00		14.66		19.00	
PL	0.07				1.00		0.17		1.00	
de facto caused by PL >= 0.07										
EL1	1.65				1.33		1.55		1.26	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.98				0.75		0.93		0.79	
fLT, Left Turn Adjustment	0.98	1.00	1.00	0.95	0.75	1.00	0.93	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.35								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	134	251	21	358	329	68	36	235	417	37	305	34
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	85	18	9	61	107	10	79	9
Adjusted Volume	138	259	22	369	339	70	37	242	430	38	314	35

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	20731	20732	20729	20730	20735	20736	20737	20733	20734
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138	280	369	409	279	115	315	38	349
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.10

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	20731	20732	20729	20730	20735	20736	20737	20733	20734
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.985
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1773

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	20731	20732	20729	20730	20735	20736	20737	20733	20734
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138.14	280.41	369.07	409.28	279.38	114.64	315.26	38.14	349.48
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1773
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.49	0.99	0.99	0.57	0.84	0.34	1.1	0.67	0.89
d1, Uniform Delay	34.03	37.45	34.91	20.42	35.22	7.85	26.77	43.01	33.91
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.96	51.80	44.36	3.33	22.28	2.74	83.26	48.25	24.28
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.99	89.25	79.26	23.75	57.50	10.59	110.02	91.26	58.19
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	72.99		50.07		73.26			61.44	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.35								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	20731	20732	20729	20730	20735	20736	20737	20733	20734
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.13	7.00	9.20	7.88	6.74	2.41	7.88	0.94	8.46
Q2, Second-term Queued	0.44	3.94	4.93	1.18	2.14	0.27	6.52	0.28	3.03
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.57	10.94	14.13	9.06	8.88	2.68	14.40	1.22	11.49
fB%, % Factor	1.74	1.56	1.53	1.58	1.58	1.79	1.53	1.89	1.55
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	6.24	17.03	21.61	14.33	14.07	4.81	22.00	2.31	17.81

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	20731	20732	20729	20730	20735	20736	20737	20733	20734
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.17	0.22	0.24	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	20731	20732	20729	20730	20735	20736	20737	20733	20734
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	27.89	
		Average LOS	C	
		V/C	0.47	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	274	0	190	199	81	88
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	74	0	52	54	22	24
Adjusted Volume	0	0	0	298	0	207	216	88	96

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	20744	20743	20746	20747	20745
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	298	207	216	184
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.52

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	20744	20743	20746	20747	20745
Control Type	Perm	Perm	Perm	No Left	No Left
s, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.628	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.930
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1097	1424	1530	1657

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	20744	20743	20746	20747	20745
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	297.83	206.52	216.3	183.7
s, Saturation Flow Rate	1800	1097	1424	1530	1657
c, Capacity	1040	341	823	884	515
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.87	0.25	0.24	0.36
d1, Uniform Delay	8.02	29.31	9.38	9.34	24.02
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	25.11	0.73	0.66	1.92
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	54.43	10.11	10.00	25.94
LOS	A	D	B	B	C
dA, Approach Delay	8.02	54.43	10.06		25.94
Approach LOS	A	D	B		C
dI, Intersection Delay	27.89				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	20744	20743	20746	20747	20745
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	7.04	2.55	2.66	3.56
Q2, Second-term Queued	0.00	2.52	0.33	0.34	0.39
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.54	1.00	1.05	0.72
Q, Average Back of Queue	0.00	9.56	2.88	3.00	3.95
fB%, % Factor	2.00	1.57	1.78	1.77	1.73
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	15.05	5.13	5.32	6.82

Signal Timing Information					
Approach	N	E	S		W
Lane Group	20744	20743	20746	20747	20745
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.27	0.14	0.14	0.11
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	20744	20743	20746	20747	20745
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	297.83	206.52		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.49	0.00	0.00		
LT Volume per Cycle	0.00	7.45	5.16		
Vo, Opposing Flow	0.00	183.70	0.00		
Volc, Adjusted Opposing F	0.00	4.59	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	2.05	0.00		
gu	5.00	25.95	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.48	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.63	0.80		
fLT, Left Turn Adjustment	1.00	0.63	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				8.28								
Average LOS				A								
V/C				0.56								
Loss Time				9								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	376	44	15	37	71	78	564	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	12	4	10	19	21	148	3
Adjusted Volume	75	33	42	56	396	46	16	39	75	82	594	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	20750	20751	20748	20749	20754	20755	20752	20753
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	442	55	75	82	607
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	20750	20751	20748	20749	20754	20755	20752	20753
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.390	1.000	0.894	1.000	0.525	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	689	1704	1610	1530	945	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	20750	20751	20748	20749	20754	20755	20752	20753
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	442.11	54.74	74.74	82.11	607.37
s, Saturation Flow Rate	1461	1530	689	1704	1610	1530	945	1759
c, Capacity	244	255	402	994	268	255	551	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.14	0.44	0.2	0.29	0.15	0.59
d1, Uniform Delay	13.49	12.85	3.40	4.22	12.94	13.14	3.42	4.77
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.72	1.44	1.71	2.90	0.57	2.51
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.12	5.66	14.65	16.04	3.99	7.29
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.49		15.45		6.89	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.28							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	20750	20751	20748	20749	20754	20755	20752	20753
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.49	0.47	0.65	0.37	3.87
Q2, Second-term Queued	0.17	0.05	0.05	0.48	0.06	0.10	0.07	0.87
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.32	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.30	2.96	0.53	0.75	0.44	4.74
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.69
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.27	1.04	1.45	0.87	8.03

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	20750	20751	20748	20749	20754	20755	20752	20753
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.08	0.26	0.03	0.05	0.09	0.35
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	20750	20751	20748	20749	20754	20755	20752	20753
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		607.37		107.37		442.11	
Volc, Adjusted Opposing F	0.57		6.07		1.13		4.42	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.14		0.00		0.38	
gu	6.00		17.86		5.92		20.62	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.18		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.39		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.39	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				4.11								
Worst Case Delay				32.95								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	17.00	6.00	71.00	205.00	3.00	7.00	65.00	39.00	11.00	558.00	41.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	17.53	6.19	73.20	211.34	3.09	7.22	67.01	40.21	11.34	575.26	42.27

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	17.53	6.19	73.20			7.22	67.01	40.21	11.34		
Conflicting Volume (Veh)	1031.96	999.48	212.89	617.53			990.21	979.90	596.39	214.43		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1031.96	999.48	212.89	617.53			990.21	979.90	596.39	214.43		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	212.88	237.53	832.24	938.72			219.64	251.79	507.03	1367.61		
Capacity	140.02	213.52	832.24	938.72			188.72	226.34	507.03	1367.61		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	17.53	6.19	73.20	211.34	3.09	7.22	67.01	40.21	11.34	575.26	42.27
cmx, Capacity	140.02	213.52	832.24	938.72			188.72	226.34	507.03	1367.61		
V / C	0.01	0.08	0.01	0.08			0.04	0.30	0.08	0.01		
d, Delay	32.22	23.37	10.83	9.16			32.95	29.78	20.98	7.65		
LOS	D	C	B	A			D	D	C	A		
dA, Approach Delay	20.60			2.33			26.89			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.82						0.10		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	24.74	287.63	114.43	628.87
Flared Storage Size				
cmx, Capacity	255.40	938.72	276.68	1367.61
V / C	0.10	0.31	0.41	0.46
Q95, 95% Queue Length	0.32	1.30	1.93	2.49
d, Delay	20.60	9.16	26.89	7.65
LOS	C	A	D	A
dA, Approach Delay	20.60	2.33	26.89	0.14
Approach LOS	C		D	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.75								
Worst Case Delay				34.41								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	16.00	486.00	9.00	11.00	0.00	0.00	10.00	623.00	21.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	17.58	534.07	9.89	12.09	0.00	0.00	10.99	684.62	23.08

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	17.58			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1280.77	1303.85	539.01	707.69			1291.76	1297.25	696.15	543.96		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1280.77	1303.85	539.01	707.69			1291.76	1297.25	696.15	543.96		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	143.85	161.84	546.41	872.69			141.37	163.32	438.13	985.89		
Capacity	140.44	156.81	546.41	872.69			134.44	158.25	438.13	985.89		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	17.58	534.07	9.89	12.09	0.00	0.00	10.99	684.62	23.08
cmx, Capacity	140.44	156.81	546.41	872.69			134.44	158.25	438.13	985.89		
V / C	0.03	0.02	0.01	0.02			0.09	0.00	0.00	0.01		
d, Delay	31.76	29.09	12.72	9.21			34.41	30.38	15.85	8.69		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	23.16			0.29			34.41			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	17.58	543.96	12.09	10.99	707.69
Flared Storage Size						
cmx, Capacity	211.40			134.44		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.20			0.29		
d, Delay	23.16			34.41		
LOS	C			D		
dA, Approach Delay	23.16	0.29		34.41	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				10.52								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	93.00	155.00	0.00	9.00	36.00	7.00	73.00	1.00	190.00	40.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	110.71	184.52	0.00	10.71	42.86	8.33	86.90	1.19	226.19	47.62	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	295.24	53.57	96.43	292.86
Left Turn Flow Rate	0.00	0.00	8.33	226.19
Right Turn Flow Rate	184.52	42.86	1.19	19.05
PLT, Proportion LT	0.00	0.00	0.09	0.77
PRT, Proportion RT	0.63	0.80	0.01	0.07
PHV, Proportion HV	2.38	0.40	0.41	0.77
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.33	-0.47	0.02	0.13

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	295.24	53.57	96.43	292.86
hd initial	3.20	3.20	3.20	3.20
x initial	0.26	0.05	0.09	0.26
hd, iteration 1	4.24	4.34	4.76	4.74
Difference, iteration 1	1.04	1.14	1.56	1.54
hd, iteration 2	4.55	4.73	5.14	4.99
Difference, iteration 2	0.32	0.39	0.38	0.25
hd, iteration 3	4.61	4.83	5.22	5.06
Difference, iteration 3	0.06	0.10	0.08	0.07
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.61	4.83	5.22	5.06
x final, Degree of Utilization	0.38	0.07	0.14	0.41

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	295.24	53.57	96.43	292.86
hd, Departure Headway	4.61	4.83	5.22	5.06
x, Degree of Utilization	0.38	0.07	0.14	0.41
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.61	2.83	3.22	3.06
Capacity	779.61	745.71	689.03	710.69
Delay	10.39	8.20	9.07	11.56
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	10.39	8.20	9.07	11.56
Approach LOS	B	A	A	B
Intersection Delay	10.52			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.26	
Worst Case Delay	10.23	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	29.00	9.00	48.00	30.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	39.73	12.33	65.75	41.10	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			65.75		2.74	93.15
Conflicting Volume (Veh)			52.05		218.49	45.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			52.05		218.49	45.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1566.83		774.20	1029.36
Capacity			1566.83		740.90	1029.36

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	39.73	12.33	65.75	41.10	2.74	93.15
cmx, Capacity			1566.83		740.90	1029.36
V / C			0.04		0.00	0.09
d, Delay			7.40		10.23	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.55		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	52.05	106.85	95.89
Flared Storage Size			
cmx, Capacity		1566.83	1018.04
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.55	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.25	
Worst Case Delay	17.68	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	11.00	443.00	5.00	3.00	380.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	12.22	492.22	5.56	3.33	422.22	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	12.22		5.56	3.33		
Conflicting Volume (Veh)	428.89		942.22	425.56		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	428.89		942.22	425.56		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1079.11		294.17	633.07		
Capacity	1079.11		289.48	633.07		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	12.22	492.22	5.56	3.33	422.22	6.67
cmx, Capacity	1079.11		289.48	633.07		
V / C	0.01		0.02	0.01		
d, Delay	8.37		17.68	10.93		
LOS	A		C	B		
dA, Approach Delay	0.20		15.15		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.13				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	504.44	8.89	428.89
Flared Storage Size			
cmx, Capacity	1079.11	363.45	
V / C	0.47	0.02	
Q95, 95% Queue Length	2.54	0.08	
d, Delay	8.37	15.15	
LOS	A	C	
dA, Approach Delay	0.20	15.15	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.19	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	428.00	8.00	8.00	380.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	480.90	8.99	8.99	426.97	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	431.46		952.81	429.21		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	431.46		952.81	429.21		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1138.86		289.95	630.08		
Capacity	1138.86		282.37	630.08		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	480.90	8.99	8.99	426.97	4.49
cmx, Capacity	1138.86		282.37	630.08		
V / C	0.02		0.03	0.01		
d, Delay	8.22		18.19	11.16		
LOS	A		C	B		
dA, Approach Delay	0.35		14.68		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.21				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	502.25	17.98	431.46
Flared Storage Size			
cmx, Capacity	1138.86	389.98	
V / C	0.44	0.05	
Q95, 95% Queue Length	2.30	0.14	
d, Delay	8.22	14.68	
LOS	A	B	
dA, Approach Delay	0.35	14.68	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.8	
Worst Case Delay	9.21	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	46.00	15.00	11.00	31.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	52.27	17.05	12.50	35.23

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			12.50	
Conflicting Volume (Veh)	121.02	60.80			69.32	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	121.02	60.80			69.32	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	879.21	956.06			1494.19	
Capacity	871.70	956.06			1494.19	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	52.27	17.05	12.50	35.23
cmx, Capacity	871.70	956.06			1494.19	
V / C	0.02	0.00			0.01	
d, Delay	9.21	8.84			7.43	
LOS	A	A			A	
dA, Approach Delay	9.21		0.00		1.95	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	69.32	47.73
Flared Storage Size			
cmx, Capacity	871.70		1494.19
V / C	0.02		0.03
Q95, 95% Queue Length	0.06		0.10
d, Delay	9.21		7.43
LOS	A		A
dA, Approach Delay	9.21	0.00	1.95
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.79	
Worst Case Delay	13.03	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	183.00	63.00	79.00	117.00	3.00	79.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	194.68	67.02	84.04	124.47	3.19	84.04

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			84.04		3.19	84.04
Conflicting Volume (Veh)			261.70		520.74	228.19
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			261.70		520.74	228.19
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1296.80		519.38	803.68
Capacity			1296.80		483.06	803.68

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	194.68	67.02	84.04	124.47	3.19	84.04
cmx, Capacity			1296.80		483.06	803.68
V / C			0.06		0.01	0.10
d, Delay			7.97		13.03	10.05
LOS			A		B	B
dA, Approach Delay	0.00		3.21		10.16	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.56			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	261.70	208.51	87.23
Flared Storage Size			
cmx, Capacity		1296.80	784.63
V / C		0.16	0.11
Q95, 95% Queue Length		0.57	0.37
d, Delay		7.97	10.16
LOS		A	B
dA, Approach Delay	0.00	3.21	10.16
Approach LOS			B

Scenario 14

Refinement 1 + diverter at 37th Ave

Node 10386: King Rd & Linwood Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	78.45	
Average LOS	E	
V/C	1	
Loss Time	16	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	96	384	0	92	258	66	129	512	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	100	0	24	67	17	34	133	25
Adjusted Volume	41	269	82	100	400	0	96	269	69	134	533	100

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	39972	39973	39970	39971	39976	39977	39974	39975
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	100	400	96	338	134	633
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.20	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	39972	39973	39970	39971	39976	39977	39974	39975
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.969	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	39972	39973	39970	39971	39976	39977	39974	39975
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	100	400	95.83	337.5	134.38	633.33
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706
c, Capacity	46	470	91	504	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.79	0.82	0.61	1.12	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.47	25.64	16.19	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	102.36	10.38	123.54	12.12	44.28	5.08	118.84	119.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	149.99	30.60	69.92	21.27	144.84	139.22
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		54.48		32.03		140.21	
Approach LOS	D		D		C		F	
dI, Intersection Delay	78.45							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	39972	39973	39970	39971	39976	39977	39974	39975
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.56	5.75	1.47	4.45	2.09	9.85
Q2, Second-term Queued	0.44	1.31	2.05	1.72	0.65	0.83	2.90	17.18
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.61	7.47	2.12	5.28	4.99	27.03
fB%, % Factor	1.90	1.64	1.74	1.61	1.83	1.67	1.68	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.29	12.04	3.88	8.84	8.41	40.60

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	39972	39973	39970	39971	39976	39977	39974	39975
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.20	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	39972	39973	39970	39971	39976	39977	39974	39975
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.85	
Average LOS	A	
V/C	0.7	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1800	40	1645	13	91
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	484	11	442	3	24
Adjusted Volume	1935	43	1769	14	98

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	39982	39981	39978	39980	39984
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1935	43	1769	14	98
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	39982	39981	39978	39980	39984
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	39982	39981	39978	39980	39984
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1935.48	43.01	1768.82	13.98	97.85
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.66	0.01	0.54
d1, Uniform Delay	5.74	48.15	5.12	2.42	49.96
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.78	3.05	1.33	0.02	10.99
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.51	51.19	6.45	2.44	60.94
LOS	A	D	A	A	E
dA, Approach Delay	7.51	51.19	6.42		60.94
Approach LOS	A	D	A		E
dI, Intersection Delay	8.85				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	39982	39981	39978	39980	39984
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.20	1.30	13.22	0.09	3.07
Q2, Second-term Queued	4.32	0.13	3.31	0.02	0.47
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.52	1.43	16.53	0.11	3.55
fB%, % Factor	1.51	1.88	1.52	1.99	1.75
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.94	2.69	25.10	0.22	6.19

Signal Timing Information					
Approach	N	E	S		W
Lane Group	39982	39981	39978	39980	39984
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.03	0.53	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	39982	39981	39978	39980	39984
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.44								
Average LOS				D								
V/C				0.84								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	101	1662	156	94	207	143	206	1484	102	25	126	25
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	27	442	41	25	55	38	55	395	27	7	34	7
Adjusted Volume	107	1768	166	100	220	152	219	1579	109	27	134	27

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	107	1768	166	100	220	35	117	219	1579	109	27	134	27
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.694	1.000	1.000	1.000	0.950	1.000	1.000	0.552	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1224	3427	1515	1515	1676	3327	1500	994	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	107.45	1768.09	165.96	100	220.21	35.5	116.63	219.15	1578.72	108.51	26.6	134.04	26.6
s, Saturation Flow Rate	1676	3360	1515	1224	3427	1515	1515	1676	3327	1500	994	3427	1530
c, Capacity	335	1988	896	224	628	303	278	182	1664	750	182	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.32	0.89	0.19	0.45	0.35	0.12	0.42	1.21	0.95	0.14	0.15	0.21	0.09
d1, Uniform Delay	41.03	21.12	11.24	43.58	42.76	9.17	33.24	53.50	28.54	16.17	41.12	41.65	40.72
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.51	6.45	0.46	6.28	1.54	0.79	4.61	133.35	12.88	0.41	1.68	0.78	0.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.54	27.56	11.69	49.86	44.30	9.96	37.85	186.85	41.42	16.58	42.80	42.42	41.40
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	27.11			41.30				56.73			42.33		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.44												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.06	26.68	2.54	2.96	3.36	0.97	3.44	7.30	26.30	1.95	0.74	1.99	0.74
Q2, Second-term Queued	0.30	7.59	0.29	0.38	0.34	0.08	0.40	6.48	9.02	0.19	0.07	0.17	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.49	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	3.36	34.27	2.83	3.35	3.71	1.05	3.84	13.79	35.32	2.14	0.82	2.17	0.80
fB%, % Factor	1.76	1.50	1.78	1.76	1.74	1.91	1.73	1.53	1.50	1.83	1.92	1.82	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.91	51.42	5.05	5.88	6.44	2.00	6.66	21.12	52.99	3.91	1.57	3.95	1.53

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.11	0.08	0.06	0.02	0.08	0.13	0.47	0.07	0.03	0.04	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	39994	39995	39997	39989	39990	39992	39993	39985	39986	39988	39998	39999	40001
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				100.00							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.33							0.89		
Vo, Opposing Flow				134.04							220.21		
Volc, Adjusted Opposing F				2.46							4.04		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Ra				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.19							3.08		
gu				21.81							18.92		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.43							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.69							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.69	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				51.45								
Average LOS				D								
V/C				0.99								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	269	1646	22	85	236	127	55	1605	43	7	298	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	70	429	6	22	61	33	14	418	11	2	78	15
Adjusted Volume	280	1715	23	89	246	132	57	1672	45	7	310	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	40018	40019	40021	40016	40012	40013	40015	40022
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	280	1715	23	467	57	1672	45	376
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.28	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	40018	40019	40021	40016	40012	40013	40015	40022
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.694	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.957	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2170	1613	3360	1471	3045

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	40018	40019	40021	40016	40012	40013	40015	40022
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	280.21	1714.58	22.92	466.67	57.29	1671.88	44.79	376.04
s, Saturation Flow Rate	1710	3327	1530	2170	1613	3360	1471	3045
c, Capacity	309	1897	872	479	149	1618	709	672
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.91	0.9	0.03	0.97	0.38	1.03	0.06	0.56
d1, Uniform Delay	48.15	22.89	11.26	46.40	51.23	31.10	16.63	41.56
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	31.98	7.60	0.06	35.06	7.32	31.36	0.17	3.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	80.14	30.49	11.32	81.47	58.56	62.46	16.80	44.90
LOS	F	C	B	F	E	E	B	D
dA, Approach Delay	37.17			81.47	61.18			44.90
Approach LOS	D			F	E			D
dI, Intersection Delay	51.45							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	40018	40019	40021	40016	40012	40013	40015	40022
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.15	26.63	0.33	8.11	1.80	29.27	0.80	5.85
Q2, Second-term Queued	3.17	7.90	0.03	3.64	0.23	13.58	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.32	34.53	0.37	11.75	2.02	42.85	0.87	6.67
fB%, % Factor	1.54	1.50	1.96	1.55	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.00	51.81	0.72	18.19	3.71	64.29	1.67	10.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	40018	40019	40021	40016	40012	40013	40015	40022
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.22	0.04	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	40018	40019	40021	40016	40012	40013	40015	40022
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				88.54				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.95				0.24
Vo, Opposing Flow				376.04				466.67
Volc, Adjusted Opposing F				6.58				8.17
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.52				10.74
gu				18.98				11.26
PL				0.54				0.04
de facto caused by PL >=								
EL1				1.91				2.10
EL2				26.51				0.00
gdiff				0.00				0.00
fm				0.48				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.69	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.3
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	429.00	55.00	391.00	171.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	471.43	60.44	429.67	187.91

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		523.63		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		523.63		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		553.49		
Capacity		553.49		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	471.43	60.44	429.67	187.91
cmx, Capacity		553.49		
V / C		0.11		
d, Delay		12.30		
LOS		B		
dA, Approach Delay	0.00	12.30	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	471.43	60.44	617.58
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.30	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.97	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	374	85	166	451
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	98	22	44	119
Adjusted Volume	89	118	394	89	175	475

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	40039	40038	40040	40042
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	483	175	475
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.19	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	40039	40038	40040	40042
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.349
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1704	1693	622

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	40039	40038	40040		40042
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	483.16	132	43	474.74
			175		
s, Saturation Flow Rate	1627	1704	1693	622	1748
			772		
c, Capacity	560	757	132	297	971
			429		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.64	1.00	0.14	0.49
			0.41		
d1, Uniform Delay	22.16	19.39	11.23		12.20
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.09	2.86		1.76
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.47	14.08		13.96
LOS	C	C	B		B
dA, Approach Delay	24.04	23.47	14.00		
Approach LOS	C	C	B		
dI, Intersection Delay	18.97				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	40039	40038	40040	40042
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.37	2.51	7.24
Q2, Second-term Queued	0.44	1.58	0.43	1.05
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	10.95	2.94	8.29
fB%, % Factor	1.71	1.56	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	17.04	5.22	13.23

Signal Timing Information

Approach	N	E	W		
Lane Group	40039	40038	40040		40042
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing

Approach	N	E	W		
Lane Group	40039	40038	40040		40042
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				483.16	
Volc, Adjusted Opposing Flow				12.08	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.85	
gu				29.15	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.94	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.07	
Worst Case Delay	11.78	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	46.00	114.00	316.00	33.00	58.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	50.55	125.27	347.25	36.26	63.74

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			125.27			63.74
Conflicting Volume (Veh)			365.38			458.24
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			365.38			458.24
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			679.72			594.42
Capacity			679.72			594.42

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	50.55	125.27	347.25	36.26	63.74
cmx, Capacity			679.72			594.42
V / C			0.18			0.11
d, Delay			11.49			11.78
LOS			B			B
dA, Approach Delay	0.00		11.49	0.00		11.78
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	483.52	125.27	383.52	63.74
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.49	0.00	11.78
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				9.07								
Worst Case Delay				13.25								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	25.00	123.00	22.00	76.00	20.00	15.00	8.00	35.00	48.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	27.17	133.70	23.91	82.61	21.74	16.30	8.70	38.04	52.17	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	27.17	133.70	23.91	82.61			8.70	38.04	52.17	5.43		
Conflicting Volume (Veh)	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	680.92	662.48	1036.06	1592.47			639.32	664.22	1057.68	1585.26		
Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	27.17	133.70	23.91	82.61	21.74	16.30	8.70	38.04	52.17	5.43	16.30	16.30
cmx, Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		
V / C	0.05	0.21	0.02	0.05			0.02	0.06	0.05	0.00		
d, Delay	13.25	12.92	10.64	7.38			12.87	11.42	9.08	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.67			5.06			10.31			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.39						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	184.78	120.65	98.91	38.04
Flared Storage Size				
cmx, Capacity	653.11	1592.47	776.31	1585.26
V / C	0.28	0.08	0.13	0.02
Q95, 95% Queue Length	1.16	0.25	0.44	0.07
d, Delay	12.67	7.38	10.31	7.28
LOS	B	A	B	A
dA, Approach Delay	12.67	5.06	10.31	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.87								
Worst Case Delay				38.19								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	144.00	7.00	85.00	40.00	84.00	32.00	131.00	149.00	6.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	169.41	8.24	100.00	47.06	98.82	37.65	154.12	175.29	7.06	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			100.00	47.06	98.82	37.65			7.06	7.06	54.12
Conflicting Volume (Veh)	329.41			813.53	791.18	241.76	177.65			860.00	874.71	173.53
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	329.41			813.53	791.18	241.76	177.65			860.00	874.71	173.53
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1224.50			297.99	324.22	797.08	1410.50			278.36	290.02	864.76
Capacity	1224.50			241.89	275.54	797.08	1410.50			188.13	246.47	864.76

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	169.41	8.24	100.00	47.06	98.82	37.65	154.12	175.29	7.06	7.06	54.12
cmx, Capacity	1224.50			241.89	275.54	797.08	1410.50			188.13	246.47	864.76
V / C	0.12			0.41	0.17	0.12	0.03			0.04	0.03	0.06
d, Delay	8.34			38.19	36.37	10.15	7.62			25.14	20.61	10.16
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.80			26.57			0.78			12.79		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	177.65	147.06	98.82	367.06	68.24
Flared Storage Size						
cmx, Capacity			251.73		1410.50	530.02
V / C			0.58		0.26	0.13
Q95, 95% Queue Length			3.35		1.05	0.44
d, Delay			37.60		7.62	12.79
LOS			E		A	B
dA, Approach Delay	3.80		26.57		0.78	12.79
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.16	
Worst Case Delay	16.22	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	28.00	22.00	314.00	53.00	25.00	338.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	29.79	23.40	334.04	56.38	26.60	359.57

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	29.79	23.40			26.60	
Conflicting Volume (Veh)	775.00	362.23			390.43	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	775.00	362.23			390.43	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	364.94	687.01			1179.10	
Capacity	354.50	687.01			1179.10	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	29.79	23.40	334.04	56.38	26.60	359.57
cmx, Capacity	354.50	687.01			1179.10	
V / C	0.08	0.03			0.02	
d, Delay	16.22	11.31			8.12	
LOS	C	B			A	
dA, Approach Delay	14.06		0.00		0.56	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.23	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	53.19	390.43	386.17
Flared Storage Size			
cmx, Capacity	450.42		1179.10
V / C	0.12		0.33
Q95, 95% Queue Length	0.40		1.44
d, Delay	14.06		8.12
LOS	B		A
dA, Approach Delay	14.06	0.00	0.56
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.61	
Worst Case Delay	28.35	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	492.00	4.00	24.00	759.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	34.69	502.04	4.08	24.49	774.49	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	34.69		4.08	24.49		
Conflicting Volume (Veh)	775.51		1346.43	775.00		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	775.51		1346.43	775.00		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	836.02		168.41	394.76		
Capacity	836.02		161.42	394.76		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	34.69	502.04	4.08	24.49	774.49	1.02
cmx, Capacity	836.02		161.42	394.76		
V / C	0.04		0.03	0.06		
d, Delay	9.49		28.35	15.17		
LOS	A		D	C		
dA, Approach Delay	0.61		17.05		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	34.69	502.04	28.57	775.51
Flared Storage Size				
cmx, Capacity			327.19	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			17.05	
LOS			C	
dA, Approach Delay	0.61		17.05	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.3		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	2.00	49.00	2.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	2.13	52.13	2.13	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	2.13	14.89
PLT, Proportion LT	0.27	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.04	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.00	3.82	4.01	3.84
Difference, iteration 1	0.80	0.62	0.81	0.64
hd, iteration 2	4.03	3.88	4.04	3.90
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.88	4.04	3.90
x final, Degree of Utilization	0.09	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd, Departure Headway	4.03	3.88	4.04	3.90
x, Degree of Utilization	0.09	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.88	2.04	1.90
Capacity	893.72	926.32	891.39	923.35
Delay	7.44	6.94	7.31	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.31	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.3			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.85	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	184.00	182.00	1.00	54.00	242.00	169.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	202.20	200.00	1.10	59.34	265.93	185.71
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	402.20	1.10	325.27	185.71
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	200.00	1.10	265.93	185.71
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.50	1.00	0.82	1.00
PHV, Proportion HV	3.49	0.00	1.82	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.24	-0.60	-0.46	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	402.20	1.10	325.27	185.71
hd initial	3.20	3.20	3.20	3.20
x initial	0.36	0.00	0.29	0.17
hd, iteration 1	4.24	3.99	3.74	3.88
Difference, iteration 1	1.04	0.79	0.54	0.68
hd, iteration 2	4.36	4.22	3.83	3.97
Difference, iteration 2	0.12	0.23	0.10	0.09
hd, iteration 3	4.38	4.25	3.84	3.99
Difference, iteration 3	0.02	0.03	0.01	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.38	4.25	3.84	3.99
x final, Degree of Utilization	0.49	0.00	0.35	0.21

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	402.20	1.10	325.27	185.71
hd, Departure Headway	4.38	4.25	3.84	3.99
x, Degree of Utilization	0.49	0.00	0.35	0.21
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.38	2.25	1.84	1.99
Capacity	821.68	847.52	936.12	902.36
Delay	11.50	7.25	8.87	8.02
LOS	B	A	A	A
Q95, 95% Queue Length				
Approach Delay	11.50	7.25	8.87	8.02
Approach LOS	B	A	A	A
Intersection Delay	9.85			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.48	
Worst Case Delay	29.66	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	160.00	150.00	143.00	42.00	241.00	203.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	163.27	153.06	145.92	42.86	245.92	207.14

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	163.27		145.92	42.86		
Conflicting Volume (Veh)	453.06		829.08	349.49		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	453.06		829.08	349.49		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1118.21		343.13	696.10		
Capacity	1118.21		288.07	696.10		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	163.27	153.06	145.92	42.86	245.92	207.14
cmx, Capacity	1118.21		288.07	696.10		
V / C	0.15		0.51	0.06		
d, Delay	8.77		29.66	10.51		
LOS	A		D	B		
dA, Approach Delay	4.53		25.31		0.00	
Approach LOS			D			
dRank1, Rank 1 Delay	1.41				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	316.33	145.92	42.86	453.06
Flared Storage Size				
cmx, Capacity	1118.21			
V / C	0.28			
Q95, 95% Queue Length	1.17			
d, Delay	8.77			
LOS	A			
dA, Approach Delay	4.53	25.31		0.00
Approach LOS		D		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.34	
Worst Case Delay	15.99	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	291.00	30.00	9.00	342.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	326.97	33.71	10.11	384.27

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	748.31	343.82			360.67	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	748.31	343.82			360.67	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	382.76	703.51			1209.12	
Capacity	378.62	703.51			1209.12	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	326.97	33.71	10.11	384.27
cmx, Capacity	378.62	703.51			1209.12	
V / C	0.12	0.04			0.01	
d, Delay	15.99	11.59			8.00	
LOS	C	B			A	
dA, Approach Delay	14.45		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	360.67	394.38
Flared Storage Size			
cmx, Capacity	451.42		1209.12
V / C	0.16		0.33
Q95, 95% Queue Length	0.55		1.43
d, Delay	14.45		8.00
LOS	B		A
dA, Approach Delay	14.45	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	10.81	
Average LOS	B	
V/C	0.65	
Loss Time	8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	138	138	173	0	287	18	0	85	122	113	444	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	37	47	0	77	5	0	23	33	30	119	1
Adjusted Volume	148	148	186	0	309	19	0	91	131	122	477	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	40069	40070	40067	40068	40073	40074	40071	40072
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	297	186	0	328	91	131	122	483
PLT, Proportion Left Turns	0.50	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	40069	40070	40067	40068	40073	40074	40071	40072
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.837	1.000	0.427	1.000	1.000	1.000	0.594	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.991	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1476	1485	768	1749	1782	1530	990	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	40069	40070	40067	40068	40073	40074	40071	40072
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	296.77	186.02	0	327.96	91.4	131.18	121.51	482.8
s, Saturation Flow Rate	1476	1485	768	1749	1782	1530	990	1762
c, Capacity	443	446	333	758	535	459	429	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.67	0.42	0	0.43	0.17	0.29	0.28	0.63
d1, Uniform Delay	9.20	8.40	4.82	5.93	7.75	8.04	5.49	6.63
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.84	2.86	0.00	1.80	0.69	1.56	1.65	3.96
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	17.04	11.27	4.82	7.73	8.44	9.60	7.14	10.60
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.81		7.73		9.12		9.90	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.81							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	40069	40070	40067	40068	40073	40074	40071	40072
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.17	1.24	0.00	1.91	0.56	0.84	0.65	3.14
Q2, Second-term Queued	0.59	0.21	0.00	0.33	0.07	0.12	0.12	0.74
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.25	0.44	0.34	0.31	0.29	0.44
Q, Average Back of Queue	2.76	1.45	0.00	2.24	0.63	0.96	0.77	3.88
fB%, % Factor	1.79	1.87	2.00	1.82	1.94	1.91	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.93	2.73	0.00	4.07	1.23	1.84	1.48	6.71

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	40069	40070	40067	40068	40073	40074	40071	40072
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.19	0.05	0.09	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	40069	40070	40067	40068	40073	40074	40071	40072
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	148.39		0.00				121.51	
PLT, Proportion LT in Lane	0.50		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.24		0.00				1.01	
Vo, Opposing Flow	91.40		482.80				327.96	
Volc, Adjusted Opposing F	0.80		4.02				2.73	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.23				0.00	
gu	9.00		10.77				13.00	
PL	0.50		1.00				1.00	
de facto caused by PL >=								
EL1	1.39		1.94				1.68	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.84		0.43				0.59	
fLT, Left Turn Adjustment	0.84	1.00	0.43	1.00	1.00	1.00	0.59	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	17.32	
Average LOS	B	
V/C	0.3	
Loss Time	14	

Volume and Adjustments by Movement											
Approach	N			E			S		W		
Movement	L1	T	R1	L1	T	R1	L1	T	L1	T	R1
Base Volume	13	77	272	42	3	10	84	163	580	92	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	20	72	11	1	3	22	43	153	24	0
Adjusted Volume	14	81	286	44	3	11	88	172	611	97	0

Volume and Adjustments by Lane Group									
Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	40078	40079	40080	40075	40076	40077	40084	40081	40083
Lanes	LT	R	R	L	L	RT	LT	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	95	215	72	24	20	14	260	611	97
PLT, Proportion Left Turns	0.14	0.00	0.00	1.00	1.00	0.00	0.34	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	0.77	0.00	0.00	0.00

Saturation Flow Rate										
Approach	N			E			S	W		
Lane Group	40078	40079	40080	40075	40076	40077	40084	40081		40083
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.952	1.000	1.000	0.950	0.733	1.000	0.890	0.950	0.790	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.885	1.000	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1714	1485	1485	1710	1319	1546	1586	1676	1394	1800

Capacity, Control Delay, and Level of Service Determination										
Approach	N			E			S	W		
Lane Group	40078	40079	40080	40075	40076	40077	40084	40081		40083
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	94.74	214.74	71.58	24.32	19.89	13.68	260	335	275	96.84
								611		
s, Saturation Flow Rate	1714	1485	1485	1710	1319	1546	1586	1676	1394	1800
								1504		
c, Capacity	543	470	248	114	374	438	502	335	442	690
								777		
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
X, Volume / Capacity	0.17	0.46	0.29	0.21	0.05	0.03	0.52	1.00	0.62	0.14
								0.79		
d1, Uniform Delay	14.83	12.28	5.47	14.58	7.04	15.55	16.76	11.13		12.06
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		0.50
d2, Incremental Delay,	0.70	3.17	2.93	4.23	0.27	0.13	3.78	7.86		0.43
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
d, Delay	15.53	15.45	8.40	18.81	7.31	15.68	20.54	19.00		12.48
LOS	B	B	A	B	A	B	C	B		B
dA, Approach Delay	14.15			14.12			20.54	18.10		
Approach LOS	B			B			C	B		
dI, Intersection Delay	17.32									
Intersection LOS	B									

[illegible]

kB, Early Arrival Adj. Factor	0.56	0.51	0.32	0.19	0.43	0.48	0.53	0.72	0.66
Q, Average Back of Queue	1.26	3.28	1.18	0.43	0.27	0.18	4.10	10.65	1.16
fB%, % Factor	1.89	1.76	1.90	1.96	1.97	1.98	1.72	1.56	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	2.38	5.77	2.23	0.85	0.52	0.36	7.06	16.61	2.20

Signal Timing Information

Approach	N			E			S	W		
Lane Group	40078	40079	40080	40075	40076	40077	40084	40081		40083
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.06	0.14	0.05	0.01	0.02	0.01	0.16	0.20	0.20	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	40078	40079	40080	40075	40076	40077	40084	40081		40083
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				44.21		88.42		610.53	
PLT, Proportion LT in Lane	0.14				1.00		0.34		1.00	
PLTo, Proportion LT in Opposing Flow	0.34				0.00		0.04		0.00	
LT Volume per Cycle	0.23				0.74		1.47		10.18	
Vo, Opposing Flow	260.00				96.84		94.74		13.68	
Volc, Adjusted Opposing Flow	4.33				1.61		1.66		0.23	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		1.34		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	5.09				0.00		0.00		0.00	
gu	10.47				17.00		17.66		19.00	
PL	0.14				1.00		0.34		1.00	
de facto caused by PL >= 0.14										
EL1	1.66				1.36		1.40		1.27	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.95				0.73		0.89		0.79	
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.95	0.73	1.00	0.89	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S		W		
Movement	L1	T	R1	L1	T	R1	L1	T	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.96								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	134	254	21	358	327	69	36	235	417	40	308	32
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	84	18	9	61	107	10	79	8
Adjusted Volume	138	262	22	369	337	71	37	242	430	41	318	33

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	40087	40088	40085	40086	40091	40092	40093	40089	40090
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138	284	369	408	279	115	315	41	351
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.09

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	40087	40088	40085	40086	40091	40092	40093	40089	40090
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustmen	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.986
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1775

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	40087	40088	40085	40086	40091	40092	40093	40089	40090
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138.14	283.51	369.07	408.25	279.38	114.64	315.26	41.24	350.52
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1775
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.49	1	0.99	0.57	0.84	0.34	1.1	0.72	0.89
d1, Uniform Delay	34.03	37.50	34.91	20.41	35.22	7.85	26.77	43.09	33.92
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.96	54.51	44.36	3.32	22.28	2.74	83.26	56.74	24.50
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.99	92.01	79.26	23.72	57.50	10.59	110.02	99.83	58.42
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	74.96		50.09		73.26			62.78	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.96								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	40087	40088	40085	40086	40091	40092	40093	40089	40090
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.13	7.09	9.20	7.86	6.74	2.41	7.88	1.02	8.49
Q2, Second-term Queued	0.44	4.15	4.93	1.17	2.14	0.27	6.52	0.34	3.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.57	11.24	14.13	9.03	8.88	2.68	14.40	1.36	11.55
fB%, % Factor	1.74	1.55	1.53	1.58	1.58	1.79	1.53	1.88	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.24	17.46	21.61	14.29	14.07	4.81	22.00	2.56	17.90

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	40087	40088	40085	40086	40091	40092	40093	40089	40090
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.17	0.22	0.24	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	40087	40088	40085	40086	40091	40092	40093	40089	40090
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdifff									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	24.66	
		Average LOS	C	
		V/C	0.51	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	262	0	268	129	81	73
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	71	0	73	35	22	20
Adjusted Volume	0	0	0	285	0	291	140	88	79

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	40100	40099	40102	40103	40101
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	285	291	140	167
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.47

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	40100	40099	40102	40103	40101
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.654	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.936
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1143	1424	1530	1668

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	40100	40099	40102	40103	40101
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	284.78	291.3	140.22	167.39
s, Saturation Flow Rate	1800	1143	1424	1530	1668
c, Capacity	1040	356	823	884	519
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.8	0.35	0.16	0.32
d1, Uniform Delay	8.02	28.44	10.08	8.83	23.74
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	17.09	1.19	0.38	1.64
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	45.53	11.28	9.22	25.38
LOS	A	D	B	A	C
dA, Approach Delay	8.02	45.53	10.61		25.38
Approach LOS	A	D	B		C
dI, Intersection Delay	24.66				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	40100	40099	40102	40103	40101
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	6.53	3.87	1.63	3.20
Q2, Second-term Queued	0.00	1.84	0.54	0.20	0.34
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	8.37	4.41	1.83	3.55
fB%, % Factor	2.00	1.59	1.71	1.85	1.75
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	13.35	7.52	3.37	6.19

Signal Timing Information					
Approach	N	E	S		W
Lane Group	40100	40099	40102	40103	40101
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.25	0.20	0.09	0.10
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	40100	40099	40102	40103	40101
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	284.78	291.30		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.68	0.00	0.00		
LT Volume per Cycle	0.00	7.12	7.28		
Vo, Opposing Flow	0.00	167.39	0.00		
Volc, Adjusted Opposing F	0.00	4.18	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.36	0.00		
gu	5.00	26.64	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.45	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.65	0.80		
fLT, Left Turn Adjustment	1.00	0.65	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	8.47
Average LOS	A
V/C	0.58
Loss Time	9

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	381	44	15	37	71	78	593	14
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	100	12	4	10	19	21	156	4
Adjusted Volume	75	33	42	56	401	46	16	39	75	82	624	15

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	40106	40107	40104	40105	40110	40111	40108	40109
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	447	55	75	82	639
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	40106	40107	40104	40105	40110	40111	40108	40109
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.366	1.000	0.894	1.000	0.520	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	646	1704	1610	1530	937	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	40106	40107	40104	40105	40110	40111	40108	40109
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	447.37	54.74	74.74	82.11	638.95
s, Saturation Flow Rate	1461	1530	646	1704	1610	1530	937	1759
c, Capacity	244	255	377	994	268	255	546	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.15	0.45	0.2	0.29	0.15	0.62
d1, Uniform Delay	13.49	12.85	3.42	4.24	12.94	13.14	3.43	4.91
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.83	1.47	1.71	2.90	0.58	2.85
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.25	5.71	14.65	16.04	4.01	7.76
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.55		15.45		7.33	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.47							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	40106	40107	40104	40105	40110	40111	40108	40109
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.53	0.47	0.65	0.37	4.18
Q2, Second-term Queued	0.17	0.05	0.05	0.49	0.06	0.10	0.07	0.99
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.30	0.60	0.24	0.23	0.39	0.61
Q, Average Back of Queue	1.14	0.41	0.31	3.01	0.53	0.75	0.44	5.17
fB%, % Factor	1.90	1.96	1.97	1.77	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.61	5.35	1.04	1.45	0.87	8.68

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	40106	40107	40104	40105	40110	40111	40108	40109
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation Flow	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	40106	40107	40104	40105	40110	40111	40108	40109
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Multiple(M)	S		S		S		S	
Opposed by Single(S) or Multiple(M)	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opposing Flow	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Opposing Flow	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		638.95		107.37		447.37	
Volc, Adjusted Opposing Flow	0.57		6.39		1.13		4.47	
FLUo, Opposing Lane Utilization	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Ratio	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clearance	0.00		3.75		0.00		0.46	
gu	6.00		17.25		5.92		20.54	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >= 0.5								
EL1	1.33		2.24		1.42		1.88	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.37		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.37	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				6.98								
Worst Case Delay				88.95								
Worst Case LOS				F								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	11.00	6.00	212.00	244.00	12.00	0.00	52.00	39.00	12.00	630.00	44.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	11.34	6.19	218.56	251.55	12.37	0.00	53.61	40.21	12.37	649.48	45.36

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	11.34	6.19	218.56			0.00	53.61	40.21	12.37		
Conflicting Volume (Veh)	1438.66	1414.43	257.73	694.85			1400.52	1397.94	672.16	263.92		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1438.66	1414.43	257.73	694.85			1400.52	1397.94	672.16	263.92		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	111.91	133.59	785.80	877.95			114.20	142.08	459.19	1311.88		
Capacity	45.75	92.72	785.80	877.95			78.80	98.61	459.19	1311.88		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	11.34	6.19	218.56	251.55	12.37	0.00	53.61	40.21	12.37	649.48	45.36
cmx, Capacity	45.75	92.72	785.80	877.95			78.80	98.61	459.19	1311.88		
V / C	0.02	0.12	0.01	0.25			0.00	0.54	0.09	0.01		
d, Delay	88.95	49.09	14.85	10.45			85.03	75.85	47.18	7.77		
LOS	F	E	B	B			F	F	E	A		
dA, Approach Delay	39.89			4.74			63.56			0.14		
Approach LOS	E						F					
dRank1, Rank 1 Delay				3.08						0.12		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	18.56	482.47	93.81	707.22
Flared Storage Size				
cmx, Capacity	121.51	877.95	148.63	1311.88
V / C	0.15	0.55	0.63	0.54
Q95, 95% Queue Length	0.52	3.42	3.42	3.36
d, Delay	39.89	10.45	63.56	7.77
LOS	E	B	F	A
dA, Approach Delay	39.89	4.74	63.56	0.14
Approach LOS	E		F	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.77								
Worst Case Delay				33.7								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	19.00	473.00	9.00	11.00	0.00	0.00	10.00	617.00	19.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	20.88	519.78	9.89	12.09	0.00	0.00	10.99	678.02	20.88

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	20.88			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1266.48	1287.36	524.73	698.90			1276.37	1281.87	688.46	529.67		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1266.48	1287.36	524.73	698.90			1276.37	1281.87	688.46	529.67		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	147.14	165.56	556.66	879.36			144.86	166.82	442.60	998.17		
Capacity	143.27	159.85	556.66	879.36			137.46	161.07	442.60	998.17		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	20.88	519.78	9.89	12.09	0.00	0.00	10.99	678.02	20.88
cmx, Capacity	143.27	159.85	556.66	879.36			137.46	161.07	442.60	998.17		
V / C	0.03	0.02	0.01	0.02			0.09	0.00	0.00	0.01		
d, Delay	31.21	28.61	12.55	9.19			33.70	29.86	15.64	8.65		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	22.79			0.35			33.70			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	20.88	529.67	12.09	10.99	698.90
Flared Storage Size						
cmx, Capacity	215.56			137.46		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.19			0.28		
d, Delay	22.79			33.70		
LOS	C			D		
dA, Approach Delay	22.79	0.35		33.70	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	9.08		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	93.00	50.00	0.00	6.00	36.00	7.00	117.00	1.00	120.00	40.00	16.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	110.71	59.52	0.00	7.14	42.86	8.33	139.29	1.19	142.86	47.62	19.05
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	170.24	50.00	148.81	209.52
Left Turn Flow Rate	0.00	0.00	8.33	142.86
Right Turn Flow Rate	59.52	42.86	1.19	19.05
PLT, Proportion LT	0.00	0.00	0.06	0.68
PRT, Proportion RT	0.35	0.86	0.01	0.09
PHV, Proportion HV	2.65	0.29	0.26	0.68
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.16	-0.51	0.01	0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	170.24	50.00	148.81	209.52
hd initial	3.20	3.20	3.20	3.20
x initial	0.15	0.04	0.13	0.19
hd, iteration 1	4.30	4.10	4.49	4.57
Difference, iteration 1	1.10	0.90	1.29	1.37
hd, iteration 2	4.53	4.39	4.73	4.78
Difference, iteration 2	0.23	0.29	0.23	0.21
hd, iteration 3	4.57	4.44	4.77	4.82
Difference, iteration 3	0.04	0.05	0.04	0.04
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.57	4.44	4.77	4.82
x final, Degree of Utilization	0.22	0.06	0.20	0.28

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	170.24	50.00	148.81	209.52
hd, Departure Headway	4.57	4.44	4.77	4.82
x, Degree of Utilization	0.22	0.06	0.20	0.28
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.57	2.44	2.77	2.82
Capacity	786.44	809.86	754.07	746.02
Delay	8.83	7.74	8.94	9.70
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.83	7.74	8.94	9.70
Approach LOS	A	A	A	A
Intersection Delay	9.08			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.33	
Worst Case Delay	10.23	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			50.68		218.49	44.52
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			50.68		218.49	44.52
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1568.62		774.20	1031.15
Capacity			1568.62		740.28	1031.15

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1568.62		740.28	1031.15
V / C			0.04		0.00	0.09
d, Delay			7.40		10.23	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	50.68	106.85	95.89
Flared Storage Size			
cmx, Capacity		1568.62	1019.70
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.3	
Worst Case Delay	18.02	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	441.00	7.00	3.00	391.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	490.00	7.78	3.33	434.44	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		7.78	3.33		
Conflicting Volume (Veh)	441.11		954.44	437.78		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	441.11		954.44	437.78		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1067.74		289.30	623.14		
Capacity	1067.74		284.23	623.14		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	490.00	7.78	3.33	434.44	6.67
cmx, Capacity	1067.74		284.23	623.14		
V / C	0.01		0.03	0.01		
d, Delay	8.41		18.02	11.14		
LOS	A		C	B		
dA, Approach Delay	0.22		15.96		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.33	11.11	441.11
Flared Storage Size			
cmx, Capacity	1067.74	339.65	
V / C	0.47	0.03	
Q95, 95% Queue Length	2.58	0.10	
d, Delay	8.41	15.96	
LOS	A	C	
dA, Approach Delay	0.22	15.96	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.43	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	429.00	8.00	8.00	390.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	482.02	8.99	8.99	438.20	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	442.70		965.17	440.45		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	442.70		965.17	440.45		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1128.08		285.10	620.98		
Capacity	1128.08		277.57	620.98		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	482.02	8.99	8.99	438.20	4.49
cmx, Capacity	1128.08		277.57	620.98		
V / C	0.02		0.03	0.01		
d, Delay	8.25		18.43	11.26		
LOS	A		C	B		
dA, Approach Delay	0.35		14.84		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.37	17.98	442.70
Flared Storage Size			
cmx, Capacity	1128.08	383.65	
V / C	0.45	0.05	
Q95, 95% Queue Length	2.35	0.15	
d, Delay	8.25	14.84	
LOS	A	B	
dA, Approach Delay	0.35	14.84	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.61	
Worst Case Delay	9.27	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	13.00	0.00	54.00	15.00	11.00	33.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	14.77	0.00	61.36	17.05	12.50	37.50

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	14.77	0.00			12.50	
Conflicting Volume (Veh)	132.39	69.89			78.41	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	132.39	69.89			78.41	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	866.30	944.83			1482.71	
Capacity	858.84	944.83			1482.71	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	14.77	0.00	61.36	17.05	12.50	37.50
cmx, Capacity	858.84	944.83			1482.71	
V / C	0.02	0.00			0.01	
d, Delay	9.27	8.88			7.45	
LOS	A	A			A	
dA, Approach Delay	9.27		0.00		1.86	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	14.77	78.41	50.00
Flared Storage Size			
cmx, Capacity	858.84		1482.71
V / C	0.02		0.03
Q95, 95% Queue Length	0.05		0.10
d, Delay	9.27		7.45
LOS	A		A
dA, Approach Delay	9.27	0.00	1.86
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.69	
Worst Case Delay	12.9	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	179.00	71.00	74.00	119.00	3.00	78.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	190.43	75.53	78.72	126.60	3.19	82.98

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			78.72		3.19	82.98
Conflicting Volume (Veh)			265.96		512.23	228.19
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			265.96		512.23	228.19
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1292.14		525.30	803.68
Capacity			1292.14		490.73	803.68

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	190.43	75.53	78.72	126.60	3.19	82.98
cmx, Capacity			1292.14		490.73	803.68
V / C			0.06		0.01	0.10
d, Delay			7.97		12.90	10.04
LOS			A		B	B
dA, Approach Delay	0.00		3.05		10.15	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.52			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	265.96	205.32	86.17
Flared Storage Size			
cmx, Capacity		1292.14	785.13
V / C		0.16	0.11
Q95, 95% Queue Length		0.56	0.37
d, Delay		7.97	10.15
LOS		A	B
dA, Approach Delay	0.00	3.05	10.15
Approach LOS			B

Scenario 15

Refinement 1 + diverter at 42nd Ave

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	77.92
Average LOS	E
V/C	0.99
Loss Time	16

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	96	385	0	89	259	66	126	513	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	100	0	23	67	17	33	134	25
Adjusted Volume	41	269	82	100	401	0	93	270	69	131	534	100

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	2	3	0	1	6	7	4	5
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	100	401	93	339	131	634
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.20	0.00	0.16

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	2	3	0	1	6	7	4	5
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.970	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	2	3	0	1	6	7	4	5
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	100	401.04	92.71	338.54	131.25	634.38
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706
c, Capacity	46	470	91	504	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.8	0.79	0.62	1.1	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.49	25.59	16.20	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	123.54	12.25	40.30	5.11	110.39	120.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	149.99	30.74	65.89	21.32	136.39	140.03
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		54.54		30.90		139.40	
Approach LOS	D		D		C		F	
dI, Intersection Delay	77.92							
Intersection LOS	E							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	2	3	0	1	6	7	4	5
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.56	5.77	1.42	4.47	2.04	9.87
Q2, Second-term Queued	0.44	1.31	2.05	1.74	0.58	0.84	2.61	17.29
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.61	7.50	2.00	5.31	4.65	27.16
fB%, % Factor	1.90	1.64	1.74	1.61	1.84	1.67	1.70	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.29	12.09	3.67	8.88	7.89	40.80

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	2	3	0	1	6	7	4	5
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.20	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	2	3	0	1	6	7	4	5
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdiff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.93	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1814	41	1680	13	88
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	488	11	452	3	24
Adjusted Volume	1951	44	1806	14	95

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	12	11	8	10	14
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1951	44	1806	14	95
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	12	11	8	10	14
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	12	11	8	10	14
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1950.54	44.09	1806.45	13.98	94.62
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.68	0.01	0.52
d1, Uniform Delay	5.80	48.18	5.25	2.42	49.85
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.83	3.15	1.41	0.02	10.28
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.63	51.33	6.66	2.44	60.13
LOS	A	D	A	A	E
dA, Approach Delay	7.63	51.33	6.63		60.13
Approach LOS	A	D	A		E
dI, Intersection Delay	8.93				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	12	11	8	10	14
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.50	1.34	13.84	0.09	2.97
Q2, Second-term Queued	4.42	0.13	3.51	0.02	0.44
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.93	1.47	17.35	0.11	3.41
fB%, % Factor	1.51	1.87	1.52	1.99	1.75
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	31.55	2.75	26.29	0.22	5.98

Signal Timing Information					
Approach	N	E	S		W
Lane Group	12	11	8	10	14
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.59	0.03	0.54	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	12	11	8	10	14
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.24								
Average LOS				D								
V/C				0.85								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	104	1669	157	82	210	175	204	1482	88	25	132	28
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	28	444	42	22	56	47	54	394	23	7	35	7
Adjusted Volume	111	1776	167	87	223	186	217	1577	94	27	140	30

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	24	25	27	19	20	22	23	15	16	18	28	29	31
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	111	1776	167	87	223	43	143	217	1577	94	27	140	30
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	24	25	27	19	20	22	23	15	16	18	28	29	31
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.683	1.000	1.000	1.000	0.950	1.000	1.000	0.547	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1205	3427	1515	1515	1676	3327	1500	985	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	24	25	27	19	20	22	23	15	16	18	28	29	31
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	110.64	1775.53	167.02	87.23	223.4	43.44	142.73	217.02	1576.6	93.62	26.6	140.43	29.79
s, Saturation Flow Rate	1676	3360	1515	1205	3427	1515	1515	1676	3327	1500	985	3427	1530
c, Capacity	335	1988	896	221	628	303	278	182	1664	750	181	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.33	0.89	0.19	0.39	0.36	0.14	0.51	1.19	0.95	0.12	0.15	0.22	0.11
d1, Uniform Delay	41.11	21.21	11.24	43.14	42.81	9.22	33.87	53.50	28.51	16.00	41.13	41.73	40.81
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.62	6.65	0.46	5.22	1.57	0.99	6.65	129.03	12.72	0.34	1.71	0.82	0.76
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.73	27.86	11.70	48.36	44.38	10.22	40.52	182.53	41.23	16.34	42.84	42.55	41.57
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.40			40.98				56.24			42.44		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.24												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	24	25	27	19	20	22	23	15	16	18	28	29	31
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.16	26.92	2.56	2.56	3.42	1.19	4.29	7.23	26.23	1.66	0.74	2.09	0.83
Q2, Second-term Queued	0.32	7.74	0.30	0.31	0.35	0.10	0.58	6.26	8.96	0.16	0.07	0.18	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.49	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	3.48	34.65	2.85	2.87	3.77	1.29	4.87	13.49	35.19	1.83	0.82	2.28	0.89
fB%, % Factor	1.75	1.50	1.78	1.78	1.74	1.89	1.69	1.53	1.50	1.85	1.92	1.82	1.92
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.08	52.00	5.08	5.11	6.54	2.44	8.23	20.69	52.80	3.37	1.57	4.14	1.72

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	24	25	27	19	20	22	23	15	16	18	28	29	31
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.53	0.11	0.07	0.07	0.03	0.09	0.13	0.47	0.06	0.03	0.04	0.02
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	24	25	27	19	20	22	23	15	16	18	28	29	31
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				87.23							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				2.91							0.89		
Vo, Opposing Flow				140.43							223.40		
Volc, Adjusted Opposing F				2.58							4.10		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.40							3.19		
gu				21.60							18.81		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.44							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.68							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				53.21								
Average LOS				D								
V/C				0.99								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	266	1649	22	96	235	96	55	1639	44	7	297	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	69	429	6	25	61	25	14	427	11	2	77	15
Adjusted Volume	277	1718	23	100	245	100	57	1707	46	7	309	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	48	49	51	46	42	43	45	52
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	277	1718	23	445	57	1707	46	375
PLT, Proportion Left Turns	1.00	0.00	0.00	0.22	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.22	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	48	49	51	46	42	43	45	52
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.681	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.966	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2149	1613	3360	1471	3046

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	48	49	51	46	42	43	45	52
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	277.08	1717.71	22.92	444.79	57.29	1707.29	45.83	375
s, Saturation Flow Rate	1710	3327	1530	2149	1613	3360	1471	3046
c, Capacity	309	1897	872	475	149	1618	709	673
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.9	0.91	0.03	0.94	0.38	1.05	0.06	0.56
d1, Uniform Delay	48.05	22.93	11.26	45.93	51.23	31.10	16.64	41.54
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	30.41	7.71	0.06	28.29	7.32	38.45	0.18	3.32
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	78.46	30.64	11.32	74.22	58.56	69.55	16.81	44.86
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.99			74.22	67.87			44.86
Approach LOS	D			E	E			D
dI, Intersection Delay	53.21							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	48	49	51	46	42	43	45	52
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.03	26.73	0.33	7.65	1.80	29.89	0.82	5.83
Q2, Second-term Queued	3.02	7.97	0.03	3.07	0.23	15.09	0.08	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.05	34.70	0.37	10.72	2.02	44.98	0.89	6.65
fB%, % Factor	1.54	1.50	1.96	1.56	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.62	52.07	0.72	16.71	3.71	67.48	1.71	10.85

Signal Timing Information								
Approach	N			E	S			W
Lane Group	48	49	51	46	42	43	45	52
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.21	0.04	0.51	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	48	49	51	46	42	43	45	52
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				100.00				7.29
PLT, Proportion LT in Lane				0.22				0.02
PLTo, Proportion LT in Op				0.02				0.22
LT Volume per Cycle				3.33				0.24
Vo, Opposing Flow				375.00				444.79
Volc, Adjusted Opposing F				6.57				7.79
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.49				9.94
gu				19.01				11.26
PL				0.64				0.04
de facto caused by PL >=								
EL1				1.91				2.06
EL2				26.40				0.00
gdif				0.00				0.00
fm				0.45				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.29
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	429.00	55.00	390.00	172.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	471.43	60.44	428.57	189.01

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		523.08		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		523.08		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		553.88		
Capacity		553.88		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	471.43	60.44	428.57	189.01
cmx, Capacity		553.88		
V / C		0.11		
d, Delay		12.29		
LOS		B		
dA, Approach Delay	0.00	12.29	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	471.43	60.44	617.58
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.29	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	19.01	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	376	85	166	452
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	99	22	44	119
Adjusted Volume	89	118	396	89	175	476

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	69	68	70	72
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	485	175	476
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	69	68	70	72
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.347
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1704	1693	618

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	69	68	70		72
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	485.26	132	43	475.79
			175		
s, Saturation Flow Rate	1627	1704	1693	618	1748
			769		
c, Capacity	560	757	132	296	971
			427		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.64	1.00	0.15	0.49
			0.41		
d1, Uniform Delay	22.16	19.42	11.25		12.21
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.13	2.89		1.77
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.55	14.13		13.98
LOS	C	C	B		B
dA, Approach Delay	24.04	23.55	14.02		
Approach LOS	C	C	B		
dI, Intersection Delay	19.01				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	69	68	70	72
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.42	2.51	7.26
Q2, Second-term Queued	0.44	1.60	0.43	1.06
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	11.02	2.94	8.32
fB%, % Factor	1.71	1.56	1.78	1.59
Q%, Back of Queue Percent	90	90	90	90
% Back of Queue	7.42	17.14	5.23	13.27

Signal Timing Information					
Approach	N	E	W		
Lane Group	69	68	70		72
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	69	68	70	72	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				485.26	
Volc, Adjusted Opposing Flow				12.13	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.95	
gu				29.05	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.95	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	2.01	
Worst Case Delay	11.78	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	45.00	108.00	319.00	33.00	58.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	49.45	118.68	350.55	36.26	63.74

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			118.68			63.74
Conflicting Volume (Veh)			368.68			457.69
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			368.68			457.69
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			676.83			594.85
Capacity			676.83			594.85

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	49.45	118.68	350.55	36.26	63.74
cmx, Capacity			676.83			594.85
V / C			0.18			0.11
d, Delay			11.45			11.78
LOS			B			B
dA, Approach Delay	0.00		11.45	0.00		11.78
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	482.42	118.68	386.81	63.74
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.45	0.00	11.78
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				9.07								
Worst Case Delay				13.27								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	26.00	123.00	22.00	76.00	20.00	15.00	7.00	35.00	48.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	28.26	133.70	23.91	82.61	21.74	16.30	7.61	38.04	52.17	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	28.26	133.70	23.91	82.61			7.61	38.04	52.17	5.43		
Conflicting Volume (Veh)	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	680.92	662.48	1036.06	1592.47			639.32	664.22	1057.68	1585.26		
Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	28.26	133.70	23.91	82.61	21.74	16.30	7.61	38.04	52.17	5.43	16.30	16.30
cmx, Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		
V / C	0.05	0.21	0.02	0.05			0.02	0.06	0.05	0.00		
d, Delay	13.27	12.94	10.66	7.38			12.86	11.40	9.06	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.70			5.06			10.27			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.39						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	185.87	120.65	97.83	38.04
Flared Storage Size				
cmx, Capacity	652.70	1592.47	781.11	1585.26
V / C	0.28	0.08	0.13	0.02
Q95, 95% Queue Length	1.17	0.25	0.43	0.07
d, Delay	12.70	7.38	10.27	7.28
LOS	B	A	B	A
dA, Approach Delay	12.70	5.06	10.27	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.63								
Worst Case Delay				37.6								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	148.00	7.00	84.00	37.00	88.00	32.00	131.00	149.00	6.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	174.12	8.24	98.82	43.53	103.53	37.65	154.12	175.29	7.06	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			98.82	43.53	103.53	37.65			7.06	7.06	54.12
Conflicting Volume (Veh)	329.41			818.24	795.88	241.76	182.35			865.29	879.41	178.24
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	329.41			818.24	795.88	241.76	182.35			865.29	879.41	178.24
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1224.50			295.82	322.20	797.08	1404.95			276.08	288.20	859.56
Capacity	1224.50			239.98	273.78	797.08	1404.95			187.21	244.89	859.56

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	174.12	8.24	98.82	43.53	103.53	37.65	154.12	175.29	7.06	7.06	54.12
cmx, Capacity	1224.50			239.98	273.78	797.08	1404.95			187.21	244.89	859.56
V / C	0.12			0.41	0.16	0.13	0.03			0.04	0.03	0.06
d, Delay	8.34			37.60	35.74	10.19	7.63			25.24	20.71	10.20
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.74			25.73			0.78			12.85		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	182.35	142.35	103.53	367.06	68.24
Flared Storage Size						
cmx, Capacity			249.39		1404.95	526.96
V / C			0.57		0.26	0.13
Q95, 95% Queue Length			3.22		1.05	0.44
d, Delay			37.03		7.63	12.85
LOS			E		A	B
dA, Approach Delay	3.74		25.73		0.78	12.85
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.23	
Worst Case Delay	16.39	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	30.00	24.00	317.00	53.00	25.00	339.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	31.91	25.53	337.23	56.38	26.60	360.64

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	31.91	25.53			26.60	
Conflicting Volume (Veh)	779.26	365.43			393.62	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	779.26	365.43			393.62	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	362.84	684.19			1175.92	
Capacity	352.42	684.19			1175.92	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	31.91	25.53	337.23	56.38	26.60	360.64
cmx, Capacity	352.42	684.19			1175.92	
V / C	0.09	0.04			0.02	
d, Delay	16.39	11.43			8.13	
LOS	C	B			A	
dA, Approach Delay	14.18		0.00		0.56	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.23	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	57.45	393.62	387.23
Flared Storage Size			
cmx, Capacity	449.24		1175.92
V / C	0.13		0.33
Q95, 95% Queue Length	0.44		1.45
d, Delay	14.18		8.13
LOS	B		A
dA, Approach Delay	14.18	0.00	0.56
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.62	
Worst Case Delay	28.11	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	35.00	486.00	4.00	24.00	755.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	35.71	495.92	4.08	24.49	770.41	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	35.71		4.08	24.49		
Conflicting Volume (Veh)	771.43		1338.27	770.92		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	771.43		1338.27	770.92		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	838.97		170.34	396.90		
Capacity	838.97		163.08	396.90		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	35.71	495.92	4.08	24.49	770.41	1.02
cmx, Capacity	838.97		163.08	396.90		
V / C	0.04		0.03	0.06		
d, Delay	9.48		28.11	15.11		
LOS	A		D	C		
dA, Approach Delay	0.64		16.96		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	35.71	495.92	28.57	771.43
Flared Storage Size				
cmx, Capacity			329.43	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			16.96	
LOS			C	
dA, Approach Delay	0.64		16.96	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.3								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	2.00	48.00	2.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	2.13	51.06	2.13	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	55.32	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	2.13	14.89
PLT, Proportion LT	0.27	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.04	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	55.32	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.00	3.82	4.01	3.84
Difference, iteration 1	0.80	0.62	0.81	0.64
hd, iteration 2	4.03	3.88	4.04	3.90
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.88	4.04	3.90
x final, Degree of Utilization	0.09	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	55.32	23.40
hd, Departure Headway	4.03	3.88	4.04	3.90
x, Degree of Utilization	0.09	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.88	2.04	1.90
Capacity	893.72	927.11	891.83	923.35
Delay	7.44	6.94	7.30	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.30	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.3			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				10.92								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	82.00	27.00	42.00	203.00	1.00	45.00	111.00	26.00	17.00	67.00	165.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	0.00	90.11	29.67	46.15	223.08	1.10	49.45	121.98	28.57	18.68	73.63	181.32
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	119.78	270.33	49.45	150.55	273.63
Left Turn Flow Rate	0.00	46.15	49.45	0.00	18.68
Right Turn Flow Rate	29.67	1.10	0.00	28.57	181.32
PLT, Proportion LT	0.00	0.17	1.00	0.00	0.07
PRT, Proportion RT	0.25	0.00	0.00	0.19	0.66
PHV, Proportion HV	2.74	2.82	1.00	1.19	0.93
hLT,adj, Headway adjustment	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.10	0.08	0.52	-0.11	-0.37

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	119.78	270.33	49.45	150.55	273.63
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.11	0.24	0.04	0.13	0.24
hd, iteration 1	4.99	4.73	6.02	5.38	4.28
Difference, iteration 1	1.79	1.53	2.82	2.18	1.08
hd, iteration 2	5.51	5.16	6.45	5.81	4.74
Difference, iteration 2	0.52	0.43	0.43	0.43	0.47
hd, iteration 3	5.67	5.27	6.59	5.95	4.85
Difference, iteration 3	0.16	0.11	0.15	0.14	0.11
hd, iteration 4	5.71	5.31	6.63	5.99	4.89
Difference, iteration 4	0.04	0.03	0.04	0.04	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headway	5.71	5.31	6.63	5.99	4.89
x final, Degree of Utilization	0.19	0.40	0.09	0.25	0.37

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	119.78	270.33	49.45	150.55	273.63
hd, Departure Headway	5.71	5.31	6.63	5.99	4.89
x, Degree of Utilization	0.19	0.40	0.09	0.25	0.37
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	3.71	3.31	4.33	3.69	2.89
Capacity	629.90	677.41	542.75	600.43	736.17
Delay	10.04	11.78	9.99	10.68	10.75
LOS	B	B	A	B	B
Q95, 95% Queue Length					
Approach Delay	10.04	11.78	10.51		10.75
Approach LOS	B	B	B		B
Intersection Delay	10.92				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	6.61	
Worst Case Delay	29.1	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	153.00	151.00	142.00	107.00	249.00	209.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	156.12	154.08	144.90	109.18	254.08	213.27

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	156.12		144.90	109.18		
Conflicting Volume (Veh)	467.35		827.04	360.71		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	467.35		827.04	360.71		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1104.76		344.08	686.09		
Capacity	1104.76		290.61	686.09		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	156.12	154.08	144.90	109.18	254.08	213.27
cmx, Capacity	1104.76		290.61	686.09		
V / C	0.14		0.50	0.16		
d, Delay	8.79		29.10	11.24		
LOS	A		D	B		
dA, Approach Delay	4.43		21.42		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.37				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	310.20	144.90	109.18	467.35
Flared Storage Size				
cmx, Capacity	1104.76			
V / C	0.28			
Q95, 95% Queue Length	1.16			
d, Delay	8.79			
LOS	A			
dA, Approach Delay	4.43	21.42		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.33	
Worst Case Delay	16.12	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	296.00	30.00	9.00	344.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	332.58	33.71	10.11	386.52

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	756.18	349.44			366.29	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	756.18	349.44			366.29	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	378.71	698.44			1203.39	
Capacity	374.59	698.44			1203.39	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	332.58	33.71	10.11	386.52
cmx, Capacity	374.59	698.44			1203.39	
V / C	0.12	0.04			0.01	
d, Delay	16.12	11.66			8.02	
LOS	C	B			A	
dA, Approach Delay	14.56		0.00		0.20	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	366.29	396.63
Flared Storage Size			
cmx, Capacity	446.96		1203.39
V / C	0.16		0.33
Q95, 95% Queue Length	0.56		1.45
d, Delay	14.56		8.02
LOS	B		A
dA, Approach Delay	14.56	0.00	0.20
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.68	
Average LOS		B	
V/C		0.64	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	141	124	183	0	253	12	0	105	105	116	439	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	38	33	49	0	68	3	0	28	28	31	118	1
Adjusted Volume	152	133	197	0	272	13	0	113	113	125	472	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	99	100	97	98	103	104	101	102
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	285	197	0	285	113	113	125	477
PLT, Proportion Left Turns	0.53	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.05	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	99	100	97	98	103	104	101	102
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.815	1.000	0.432	1.000	1.000	1.000	0.618	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.993	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1439	1485	778	1753	1782	1530	1029	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	99	100	97	98	103	104	101	102
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	284.95	196.77	0	284.95	112.9	112.9	124.73	477.42
s, Saturation Flow Rate	1439	1485	778	1753	1782	1530	1029	1762
c, Capacity	432	446	337	760	535	459	446	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.44	0	0.38	0.21	0.25	0.28	0.63
d1, Uniform Delay	9.16	8.47	4.82	5.75	7.85	7.94	5.48	6.61
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.71	3.15	0.00	1.42	0.90	1.27	1.56	3.85
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.87	11.63	4.82	7.17	8.75	9.21	7.04	10.46
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.73		7.17		8.98		9.75	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.68							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	99	100	97	98	103	104	101	102
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.07	1.32	0.00	1.61	0.70	0.71	0.67	3.09
Q2, Second-term Queued	0.55	0.24	0.00	0.26	0.09	0.10	0.12	0.72
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.29	0.30	0.25	0.44	0.34	0.31	0.30	0.44
Q, Average Back of Queue	2.63	1.56	0.00	1.87	0.79	0.81	0.79	3.81
fB%, % Factor	1.80	1.87	2.00	1.84	1.93	1.93	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.72	2.91	0.00	3.44	1.53	1.56	1.52	6.60

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	99	100	97	98	103	104	101	102
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.16	0.06	0.07	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	99	100	97	98	103	104	101	102
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	151.61		0.00				124.73	
PLT, Proportion LT in Lane	0.53		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.26		0.00				1.04	
Vo, Opposing Flow	112.90		477.42				284.95	
Volc, Adjusted Opposing F	0.99		3.98				2.37	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.14				0.00	
gu	9.00		10.86				13.00	
PL	0.53		1.00				1.00	
de facto caused by PL >=								
EL1	1.43		1.93				1.62	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.82		0.43				0.62	
fLT, Left Turn Adjustment	0.82	1.00	0.43	1.00	1.00	1.00	0.62	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	17.46
Average LOS	B
V/C	0.29
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	204	166	58	0	10	28	186	24	582	86	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	54	44	15	0	3	7	49	6	153	23	0
Adjusted Volume	14	215	175	61	0	11	29	196	25	613	91	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	108	109	110	105	106	107	114	111	113
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	228	131	44	34	27	11	251	613	91
PLT, Proportion Left Turns	0.06	0.00	0.00	1.00	1.00	0.00	0.12	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	1.00	0.10	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	108	109	110	105	106	107	114	111		113
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.980	1.000	1.000	0.950	0.737	1.000	0.953	0.950	0.792	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.850	0.986	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1763	1485	1485	1710	1327	1485	1675	1676	1398	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	108	109	110	105	106	107	114	111		113
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	228.42	131.05	43.68	33.58	27.47	10.53	250.53	335	277	90.53
s, Saturation Flow Rate	1763	1485	1485	1710	1327	1485	1675	613		1800
								1676	1398	
c, Capacity	558	470	248	114	376	421	531	1506		690
								335	443	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	778		0.38
								0.20	0.32	
X, Volume / Capacity	0.41	0.28	0.18	0.29	0.07	0.03	0.47	0.52		0.13
								1.00	0.63	
d1, Uniform Delay	16.09	11.52	5.37	14.66	7.08	15.52	16.47	0.79		12.01
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	11.16		0.50
d2, Incremental Delay,	2.21	1.47	1.55	6.46	0.38	0.11	3.00	0.50		0.39
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.91		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		1.00
d, Delay	18.31	12.99	6.92	21.12	7.46	15.63	19.47	1.00		12.41
LOS	B	B	A	C	A	B	B	19.07		B
dA, Approach Delay	15.35			15.07			19.47	18.21		
Approach LOS	B			B			B	B		
dI, Intersection Delay	17.46									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.57	0.51	0.32	0.19	0.43	0.47	0.55	0.72	0.66
Q, Average Back of Queue	3.38	1.83	0.69	0.61	0.37	0.14	3.84	10.71	1.08
fB%, % Factor	1.75	1.85	1.94	1.94	1.96	1.99	1.73	1.56	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	5.93	3.38	1.34	1.19	0.73	0.28	6.65	16.70	2.05

Signal Timing Information

Approach	N			E			S	W		
Lane Group	108	109	110	105	106	107	114	111		113
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.13	0.09	0.03	0.02	0.02	0.01	0.15	0.20	0.20	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	108	109	110	105	106	107	114	111		113
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				61.05		29.47		612.63	
PLT, Proportion LT in Lane	0.06				1.00		0.12		1.00	
PLTo, Proportion LT in Opposing Flow	0.12				0.00		0.03		0.00	
LT Volume per Cycle	0.23				1.02		0.49		10.21	
Vo, Opposing Flow	250.53				90.53		228.42		10.53	
Volc, Adjusted Opposing Flow	4.18				1.51		4.00		0.18	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		5.96		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	4.81				0.00		1.31		0.00	
gu	10.47				17.00		13.04		19.00	
PL	0.06				1.00		0.12		1.00	
de facto caused by PL >= 0.05										
EL1	1.64				1.36		1.62		1.26	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.98				0.74		0.95		0.79	
fLT, Left Turn Adjustment	0.98	1.00	1.00	0.95	0.74	1.00	0.95	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.87								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	135	252	21	358	330	69	36	235	417	41	308	34
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	85	18	9	61	107	11	79	9
Adjusted Volume	139	260	22	369	340	71	37	242	430	42	318	35

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	117	118	115	116	121	122	123	119	120
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	139	281	369	411	279	115	315	42	353
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.10

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	117	118	115	116	121	122	123	119	120
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.985
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1773

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	117	118	115	116	121	122	123	119	120
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	139.18	281.44	369.07	411.34	279.38	114.64	315.26	42.27	352.58
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1773
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.49	1	0.99	0.58	0.84	0.34	1.1	0.74	0.89
d1, Uniform Delay	34.05	37.47	34.91	20.45	35.22	7.85	26.77	43.12	33.98
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.05	52.69	44.36	3.37	22.28	2.74	83.26	59.83	25.31
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	40.10	90.17	79.26	23.82	57.50	10.59	110.02	102.94	59.29
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	73.60		50.04		73.26			63.97	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.87								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	117	118	115	116	121	122	123	119	120
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.16	7.03	9.20	7.94	6.74	2.41	7.88	1.05	8.56
Q2, Second-term Queued	0.45	4.01	4.93	1.19	2.14	0.27	6.52	0.37	3.15
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.61	11.04	14.13	9.13	8.88	2.68	14.40	1.42	11.71
fB%, % Factor	1.74	1.55	1.53	1.58	1.58	1.79	1.53	1.88	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.29	17.17	21.61	14.42	14.07	4.81	22.00	2.66	18.12

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	117	118	115	116	121	122	123	119	120
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.17	0.22	0.24	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	117	118	115	116	121	122	123	119	120
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	28.32	
		Average LOS	C	
		V/C	0.51	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	281	0	236	152	81	81
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	76	0	64	41	22	22
Adjusted Volume	0	0	0	305	0	257	165	88	88

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	130	129	132	133	131
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	305	257	165	176
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.50

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	130	129	132	133	131
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.640	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.933
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1118	1424	1530	1662

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	130	129	132	133	131
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	305.43	256.52	165.22	176.09
s, Saturation Flow Rate	1800	1118	1424	1530	1662
c, Capacity	1040	348	823	884	517
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.88	0.31	0.19	0.34
d1, Uniform Delay	8.02	29.38	9.78	8.99	23.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	25.41	0.99	0.47	1.79
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	54.78	10.77	9.46	25.67
LOS	A	D	B	A	C
dA, Approach Delay	8.02	54.78	10.26		25.67
Approach LOS	A	D	B		C
dI, Intersection Delay	28.32				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	130	129	132	133	131
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	7.24	3.30	1.96	3.39
Q2, Second-term Queued	0.00	2.62	0.45	0.24	0.37
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	9.86	3.75	2.20	3.76
fB%, % Factor	2.00	1.57	1.74	1.82	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	15.48	6.51	4.00	6.53

Signal Timing Information					
Approach	N	E	S		W
Lane Group	130	129	132	133	131
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.27	0.18	0.11	0.11
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	130	129	132	133	131
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	305.43	256.52		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.61	0.00	0.00		
LT Volume per Cycle	0.00	7.64	6.41		
Vo, Opposing Flow	0.00	176.09	0.00		
Volc, Adjusted Opposing F	0.00	4.40	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.72	0.00		
gu	5.00	26.28	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.47	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.64	0.80		
fLT, Left Turn Adjustment	1.00	0.64	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.66	
Average LOS		A	
V/C		0.6	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	375	44	15	37	71	78	619	14
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	12	4	10	19	21	163	4
Adjusted Volume	75	33	42	56	395	46	16	39	75	82	652	15

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	136	137	134	135	140	141	138	139
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	441	55	75	82	666
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.11	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	136	137	134	135	140	141	138	139
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.345	1.000	0.894	1.000	0.526	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	609	1704	1610	1530	946	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	136	137	134	135	140	141	138	139
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	441.05	54.74	74.74	82.11	666.32
s, Saturation Flow Rate	1461	1530	609	1704	1610	1530	946	1759
c, Capacity	244	255	355	994	268	255	552	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.16	0.44	0.2	0.29	0.15	0.65
d1, Uniform Delay	13.49	12.85	3.44	4.22	12.94	13.14	3.42	5.03
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.94	1.44	1.71	2.90	0.57	3.19
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.38	5.65	14.65	16.04	3.99	8.22
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.51		15.45		7.75	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.66							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	136	137	134	135	140	141	138	139
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.26	2.48	0.47	0.65	0.37	4.47
Q2, Second-term Queued	0.17	0.05	0.05	0.47	0.06	0.10	0.07	1.11
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.29	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.31	2.95	0.53	0.75	0.44	5.58
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.66
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.61	5.25	1.04	1.45	0.87	9.28

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	136	137	134	135	140	141	138	139
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.38
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	136	137	134	135	140	141	138	139
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		666.32		107.37		441.05	
Volc, Adjusted Opposing F	0.57		6.66		1.13		4.41	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		4.32		0.00		0.37	
gu	6.00		16.68		5.92		20.63	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.30		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.35		0.89		0.53	
fLT, Left Turn Adjustment	0.81	1.00	0.35	1.00	0.89	1.00	0.53	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.9								
Worst Case Delay				32.25								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	18.00	6.00	38.00	206.00	4.00	12.00	63.00	44.00	11.00	608.00	44.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	18.56	6.19	39.18	212.37	4.12	12.37	64.95	45.36	11.34	626.80	45.36

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	18.56	6.19	39.18			12.37	64.95	45.36	11.34		
Conflicting Volume (Veh)	1020.10	987.63	214.43	672.16			977.32	967.01	649.48	216.49		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1020.10	987.63	214.43	672.16			977.32	967.01	649.48	216.49		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	216.87	241.41	830.59	895.38			224.15	256.21	473.03	1365.25		
Capacity	147.96	226.15	830.59	895.38			198.58	240.02	473.03	1365.25		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	18.56	6.19	39.18	212.37	4.12	12.37	64.95	45.36	11.34	626.80	45.36
cmx, Capacity	147.96	226.15	830.59	895.38			198.58	240.02	473.03	1365.25		
V / C	0.01	0.08	0.01	0.04			0.06	0.27	0.10	0.01		
d, Delay	30.76	22.35	10.77	9.20			32.25	29.12	21.73	7.66		
LOS	D	C	B	A			D	D	C	A		
dA, Approach Delay	19.91			1.41			26.70			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.46						0.11		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	25.77	255.67	122.68	683.51
Flared Storage Size				
cmx, Capacity	267.17	895.38	286.11	1365.25
V / C	0.10	0.29	0.43	0.50
Q95, 95% Queue Length	0.32	1.18	2.05	2.91
d, Delay	19.91	9.20	26.70	7.66
LOS	C	A	D	A
dA, Approach Delay	19.91	1.41	26.70	0.13
Approach LOS	C		D	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.76								
Worst Case Delay				33.7								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	17.00	478.00	9.00	11.00	0.00	0.00	10.00	617.00	19.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	18.68	525.27	9.89	12.09	0.00	0.00	10.99	678.02	20.88

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	18.68			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1267.58	1288.46	530.22	698.90			1277.47	1282.97	688.46	535.16		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1267.58	1288.46	530.22	698.90			1277.47	1282.97	688.46	535.16		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	146.89	165.31	552.69	879.36			144.60	166.57	442.60	993.43		
Capacity	143.29	160.01	552.69	879.36			137.48	161.23	442.60	993.43		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	18.68	525.27	9.89	12.09	0.00	0.00	10.99	678.02	20.88
cmx, Capacity	143.29	160.01	552.69	879.36			137.48	161.23	442.60	993.43		
V / C	0.03	0.02	0.01	0.02			0.09	0.00	0.00	0.01		
d, Delay	31.21	28.59	12.60	9.18			33.70	29.84	15.64	8.66		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	22.80			0.31			33.70			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	18.68	535.16	12.09	10.99	698.90
Flared Storage Size						
cmx, Capacity	215.40			137.48		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.19			0.28		
d, Delay	22.80			33.70		
LOS	C			D		
dA, Approach Delay	22.80	0.31		33.70	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.53	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	95.00	123.00	36.00	180.00	36.00	19.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	113.10	146.43	42.86	214.29	42.86	22.62
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	257.14	22.62
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	146.43	42.86	42.86	22.62
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.56	1.00	0.17	1.00
PHV, Proportion HV	2.44	0.00	5.50	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.30	-0.60	-0.01	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	257.14	22.62
hd initial	3.20	3.20	3.20	3.20
x initial	0.23	0.04	0.23	0.02
hd, iteration 1	3.83	3.75	4.16	3.74
Difference, iteration 1	0.63	0.55	0.96	0.54
hd, iteration 2	3.90	3.84	4.21	3.88
Difference, iteration 2	0.06	0.09	0.05	0.13
hd, iteration 3	3.90	3.84	4.22	3.88
Difference, iteration 3	0.00	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	3.90	3.84	4.22	3.88
x final, Degree of Utilization	0.28	0.05	0.30	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	259.52	42.86	257.14	22.62
hd, Departure Headway	3.90	3.84	4.22	3.88
x, Degree of Utilization	0.28	0.05	0.30	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	1.90	1.84	2.22	1.88
Capacity	922.53	936.14	852.29	926.46
Delay	8.42	7.03	9.03	6.98
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	8.42	7.03	9.03	6.98
Approach LOS	A	A	A	A
Intersection Delay	8.53			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.29	
Worst Case Delay	10.22	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	29.00	9.00	48.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	39.73	12.33	65.75	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			65.75		2.74	93.15
Conflicting Volume (Veh)			52.05		217.12	45.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			52.05		217.12	45.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1566.83		775.59	1029.36
Capacity			1566.83		742.26	1029.36

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	39.73	12.33	65.75	39.73	2.74	93.15
cmx, Capacity			1566.83		742.26	1029.36
V / C			0.04		0.00	0.09
d, Delay			7.40		10.22	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.61		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	52.05	105.48	95.89
Flared Storage Size			
cmx, Capacity		1566.83	1018.11
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.61	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	17.93	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	441.00	6.00	3.00	389.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	490.00	6.67	3.33	432.22	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		6.67	3.33		
Conflicting Volume (Veh)	438.89		952.22	435.56		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	438.89		952.22	435.56		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1069.80		290.18	624.93		
Capacity	1069.80		285.10	624.93		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	490.00	6.67	3.33	432.22	6.67
cmx, Capacity	1069.80		285.10	624.93		
V / C	0.01		0.02	0.01		
d, Delay	8.41		17.93	11.07		
LOS	A		C	B		
dA, Approach Delay	0.22		15.64		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.33	10.00	438.89
Flared Storage Size			
cmx, Capacity	1069.80	348.22	
V / C	0.47	0.03	
Q95, 95% Queue Length	2.57	0.09	
d, Delay	8.41	15.64	
LOS	A	C	
dA, Approach Delay	0.22	15.64	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.37	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	428.00	8.00	8.00	388.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	480.90	8.99	8.99	435.96	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	440.45		961.80	438.20		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	440.45		961.80	438.20		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1130.23		286.41	622.79		
Capacity	1130.23		278.87	622.79		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	480.90	8.99	8.99	435.96	4.49
cmx, Capacity	1130.23		278.87	622.79		
V / C	0.02		0.03	0.01		
d, Delay	8.25		18.37	11.24		
LOS	A		C	B		
dA, Approach Delay	0.35		14.80		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	502.25	17.98	440.45
Flared Storage Size			
cmx, Capacity	1130.23	385.24	
V / C	0.44	0.05	
Q95, 95% Queue Length	2.33	0.15	
d, Delay	8.25	14.80	
LOS	A	B	
dA, Approach Delay	0.35	14.80	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.64	
Worst Case Delay	9.25	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	13.00	0.00	52.00	15.00	11.00	32.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	14.77	0.00	59.09	17.05	12.50	36.36

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	14.77	0.00			12.50	
Conflicting Volume (Veh)	128.98	67.61			76.14	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	128.98	67.61			76.14	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	870.16	947.62			1485.57	
Capacity	862.68	947.62			1485.57	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	14.77	0.00	59.09	17.05	12.50	36.36
cmx, Capacity	862.68	947.62			1485.57	
V / C	0.02	0.00			0.01	
d, Delay	9.25	8.87			7.44	
LOS	A	A			A	
dA, Approach Delay	9.25		0.00		1.90	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	14.77	76.14	48.86
Flared Storage Size			
cmx, Capacity	862.68		1485.57
V / C	0.02		0.03
Q95, 95% Queue Length	0.05		0.10
d, Delay	9.25		7.44
LOS	A		A
dA, Approach Delay	9.25	0.00	1.90
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.74	
Worst Case Delay	13.03	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	182.00	68.00	78.00	119.00	3.00	78.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	193.62	72.34	82.98	126.60	3.19	82.98

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			82.98		3.19	82.98
Conflicting Volume (Veh)			265.96		522.34	229.79
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			265.96		522.34	229.79
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1292.14		518.28	802.03
Capacity			1292.14		482.32	802.03

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	193.62	72.34	82.98	126.60	3.19	82.98
cmx, Capacity			1292.14		482.32	802.03
V / C			0.06		0.01	0.10
d, Delay			7.98		13.03	10.06
LOS			A		B	B
dA, Approach Delay	0.00		3.16		10.17	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.55			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	265.96	209.57	86.17
Flared Storage Size			
cmx, Capacity		1292.14	782.81
V / C		0.16	0.11
Q95, 95% Queue Length		0.58	0.37
d, Delay		7.98	10.17
LOS		A	B
dA, Approach Delay	0.00	3.16	10.17
Approach LOS			B

Scenario 16

Refinement 1 + diverters at 37th & 42nd Ave [*Monroe St Alignment*]

Node 10386: King Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				77.76								
Average LOS				E								
V/C				1								
Loss Time				16								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	96	387	0	91	259	66	126	512	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	101	0	24	67	17	33	133	25
Adjusted Volume	41	269	82	100	403	0	95	270	69	131	533	100

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	298	299	296	297	302	303	300	301
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	100	403	95	339	131	633
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.20	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	298	299	296	297	302	303	300	301
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.970	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	298	299	296	297	302	303	300	301
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	100	403.13	94.79	338.54	131.25	633.33
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1728	1676	1706
c, Capacity	46	470	91	504	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.8	0.81	0.62	1.1	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.52	25.62	16.20	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	123.54	12.50	42.91	5.11	110.39	119.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	149.99	31.02	68.53	21.32	136.39	139.22
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		54.67		31.65		138.74	
Approach LOS	D		D		C		F	
dI, Intersection Delay	77.76							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	298	299	296	297	302	303	300	301
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.56	5.81	1.45	4.47	2.04	9.85
Q2, Second-term Queued	0.44	1.31	2.05	1.77	0.63	0.84	2.61	17.18
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.61	7.58	2.08	5.31	4.65	27.03
fB%, % Factor	1.90	1.64	1.74	1.61	1.83	1.67	1.70	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.29	12.20	3.81	8.88	7.89	40.60

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	298	299	296	297	302	303	300	301
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.20	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	298	299	296	297	302	303	300	301
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdif								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.73	
Average LOS	A	
V/C	0.7	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1796	40	1645	13	86
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	483	11	442	3	23
Adjusted Volume	1931	43	1769	14	92

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	308	307	304	306	310
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1931	43	1769	14	92
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	308	307	304	306	310
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	308	307	304	306	310
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1931.18	43.01	1768.82	13.98	92.47
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.66	0.01	0.51
d1, Uniform Delay	5.72	48.15	5.12	2.42	49.77
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.76	3.05	1.33	0.02	9.84
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.48	51.19	6.45	2.44	59.61
LOS	A	D	A	A	E
dA, Approach Delay	7.48	51.19	6.42		59.61
Approach LOS	A	D	A		E
dI, Intersection Delay	8.73				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	308	307	304	306	310
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.11	1.30	13.22	0.09	2.89
Q2, Second-term Queued	4.29	0.13	3.31	0.02	0.42
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.40	1.43	16.53	0.11	3.32
fB%, % Factor	1.51	1.88	1.52	1.99	1.76
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.77	2.69	25.10	0.22	5.83

Signal Timing Information					
Approach	N	E	S		W
Lane Group	308	307	304	306	310
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.03	0.53	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	308	307	304	306	310
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.57								
Average LOS				D								
V/C				0.84								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	98	1659	153	96	209	143	207	1484	103	25	127	30
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	26	441	41	26	56	38	55	395	27	7	34	8
Adjusted Volume	104	1765	163	102	222	152	220	1579	110	27	135	32

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	320	321	323	315	316	318	319	311	312	314	324	325	327
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	104	1765	163	102	222	35	117	220	1579	110	27	135	32
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	320	321	323	315	316	318	319	311	312	314	324	325	327
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.692	1.000	1.000	1.000	0.950	1.000	1.000	0.549	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	988	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	320	321	323	315	316	318	319	311	312	314	324	325	327
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	104.26	1764.89	162.77	102.13	222.34	35.5	116.63	220.21	1578.72	109.57	26.6	135.11	31.91
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	988	3427	1530
c, Capacity	335	1988	896	224	628	303	278	182	1664	750	181	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.31	0.89	0.18	0.46	0.35	0.12	0.42	1.21	0.95	0.15	0.15	0.22	0.11
d1, Uniform Delay	40.95	21.07	11.21	43.67	42.79	9.17	33.24	53.50	28.54	16.18	41.12	41.66	40.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.40	6.36	0.45	6.57	1.56	0.79	4.61	135.53	12.88	0.41	1.70	0.78	0.82
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.35	27.43	11.65	50.24	44.35	9.96	37.85	189.03	41.42	16.59	42.83	42.44	41.69
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	26.99			41.46				57.03			42.37		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.57												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	320	321	323	315	316	318	319	311	312	314	324	325	327
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.96	26.58	2.48	3.03	3.40	0.97	3.44	7.34	26.30	1.97	0.74	2.01	0.89
Q2, Second-term Queued	0.29	7.52	0.29	0.40	0.35	0.08	0.40	6.59	9.02	0.19	0.07	0.18	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.49	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	3.25	34.10	2.77	3.43	3.75	1.05	3.84	13.93	35.32	2.17	0.82	2.19	0.96
fB%, % Factor	1.76	1.50	1.79	1.75	1.74	1.91	1.73	1.53	1.50	1.82	1.92	1.82	1.91
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.73	51.17	4.95	6.02	6.51	2.00	6.66	21.33	52.99	3.95	1.57	3.99	1.84

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	320	321	323	315	316	318	319	311	312	314	324	325	327
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.11	0.08	0.06	0.02	0.08	0.13	0.47	0.07	0.03	0.04	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E				S			W		
Lane Group	320	321	323	315	316	318	319	311	312	314	324	325	327
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				102.13							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.40							0.89		
Vo, Opposing Flow				135.11							222.34		
Volc, Adjusted Opposing F				2.48							4.08		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.23							3.15		
gu				21.77							18.85		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.43							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.69							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.69	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.4	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	272	1643	22	84	236	126	55	1605	43	7	298	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	71	428	6	22	61	33	14	418	11	2	78	15
Adjusted Volume	283	1711	23	88	246	131	57	1672	45	7	310	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	344	345	347	342	338	339	341	348
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283	1711	23	465	57	1672	45	376
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.28	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	344	345	347	342	338	339	341	348
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.695	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.958	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2173	1613	3360	1471	3045

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	344	345	347	342	338	339	341	348
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283.33	1711.46	22.92	464.58	57.29	1671.88	44.79	376.04
s, Saturation Flow Rate	1710	3327	1530	2173	1613	3360	1471	3045
c, Capacity	309	1897	872	480	149	1618	709	672
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.92	0.9	0.03	0.97	0.38	1.03	0.06	0.56
d1, Uniform Delay	48.26	22.84	11.26	46.33	51.23	31.10	16.63	41.56
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	33.65	7.49	0.06	33.93	7.32	31.36	0.17	3.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	81.91	30.34	11.32	80.26	58.56	62.46	16.80	44.90
LOS	F	C	B	F	E	E	B	D
dA, Approach Delay	37.36			80.26	61.18			44.90
Approach LOS	D			F	E			D
dI, Intersection Delay	51.4							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	344	345	347	342	338	339	341	348
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.27	26.53	0.33	8.06	1.80	29.27	0.80	5.85
Q2, Second-term Queued	3.32	7.83	0.03	3.56	0.23	13.58	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.59	34.36	0.37	11.62	2.02	42.85	0.87	6.67
fB%, % Factor	1.54	1.50	1.96	1.55	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.40	51.56	0.72	18.00	3.71	64.29	1.67	10.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	344	345	347	342	338	339	341	348
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.04	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	344	345	347	342	338	339	341	348
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				87.50				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.92				0.24
Vo, Opposing Flow				376.04				464.58
Volc, Adjusted Opposing F				6.58				8.13
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.52				10.66
gu				18.98				11.26
PL				0.54				0.04
de facto caused by PL >=								
EL1				1.91				2.10
EL2				26.51				0.00
gdiff				0.00				0.00
fm				0.48				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.70	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.31
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	431.00	55.00	392.00	170.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	473.63	60.44	430.77	186.81

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		524.18		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		524.18		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		553.09		
Capacity		553.09		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adjustment		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	473.63	60.44	430.77	186.81
cmx, Capacity		553.09		
V / C		0.11		
d, Delay		12.31		
LOS		B		
dA, Approach Delay	0.00	12.31	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	473.63	60.44	617.58
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.31	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	19.05	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	378	85	166	450
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	99	22	44	118
Adjusted Volume	89	118	398	89	175	474

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	365	364	366	368
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	487	175	474
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate					
Approach	N	E	W		
Lane Group	365	364	366		368
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800		1800
N, Number of Lanes	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000		3.000
fHV, HV Adjustment	1.000	0.971	0.990		0.971
fg, Grade Adjustment	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000		1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.345	1.000
fRT, Right Turn Adjustment	0.923	0.975	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000		1.000
Has Short Lane					
s, Saturation Flow Rate	1627	1704	1693	615	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	365	364	366		368
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	487.37	132	43	473.68
			175		
s, Saturation Flow Rate	1627	1704	1693	615	1748
			766		
c, Capacity	560	757	132	294	971
			425		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.64	1.00	0.15	0.49
			0.41		
d1, Uniform Delay	22.16	19.45	11.27		12.19
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.18	2.92		1.75
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.63	14.19		13.95
LOS	C	C	B		B
dA, Approach Delay	24.04	23.63	14.01		
Approach LOS	C	C	B		
dI, Intersection Delay	19.05				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	365	364	366	368
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.48	2.52	7.22
Q2, Second-term Queued	0.44	1.62	0.43	1.05
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	11.10	2.95	8.27
fB%, % Factor	1.71	1.55	1.78	1.60
Q%, Back of Queue Percent	90	90	90	90
% Back of Queue	7.42	17.25	5.24	13.19

Signal Timing Information					
Approach	N	E	W		
Lane Group	365	364	366		368
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.29	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	365	364	366	368	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				487.37	
Volc, Adjusted Opposing Flow				12.18	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				14.06	
gu				28.94	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.95	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.03	
Worst Case Delay	11.77	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	46.00	111.00	318.00	33.00	57.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	50.55	121.98	349.45	36.26	62.64

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			121.98			62.64
Conflicting Volume (Veh)			367.58			458.24
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			367.58			458.24
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			677.79			594.42
Capacity			677.79			594.42

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	50.55	121.98	349.45	36.26	62.64
cmx, Capacity			677.79			594.42
V / C			0.18			0.11
d, Delay			11.47			11.77
LOS			B			B
dA, Approach Delay	0.00		11.47	0.00		11.77
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	483.52	121.98	385.71	62.64
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.47	0.00	11.77
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				9.01								
Worst Case Delay				13.16								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	24.00	123.00	22.00	74.00	20.00	15.00	7.00	35.00	49.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	26.09	133.70	23.91	80.43	21.74	16.30	7.61	38.04	53.26	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	26.09	133.70	23.91	80.43			7.61	38.04	53.26	5.43		
Conflicting Volume (Veh)	271.74	234.24	29.89	32.61			304.89	234.24	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	271.74	234.24	29.89	32.61			304.89	234.24	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	684.84	666.17	1036.06	1592.47			643.55	667.91	1057.68	1585.26		
Capacity	594.59	629.54	1036.06	1592.47			504.63	631.19	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	26.09	133.70	23.91	80.43	21.74	16.30	7.61	38.04	53.26	5.43	16.30	16.30
cmx, Capacity	594.59	629.54	1036.06	1592.47			504.63	631.19	1057.68	1585.26		
V / C	0.04	0.21	0.02	0.05			0.02	0.06	0.05	0.00		
d, Delay	13.16	12.83	10.58	7.38			12.79	11.36	9.06	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.58			5.01			10.23			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.38						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	183.70	118.48	98.91	38.04
Flared Storage Size				
cmx, Capacity	657.64	1592.47	786.86	1585.26
V / C	0.28	0.07	0.13	0.02
Q95, 95% Queue Length	1.14	0.24	0.43	0.07
d, Delay	12.58	7.38	10.23	7.28
LOS	B	A	B	A
dA, Approach Delay	12.58	5.01	10.23	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.72								
Worst Case Delay				37.6								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	143.00	7.00	84.00	39.00	86.00	32.00	132.00	149.00	6.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	168.24	8.24	98.82	45.88	101.18	37.65	155.29	175.29	7.06	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			98.82	45.88	101.18	37.65			7.06	7.06	54.12
Conflicting Volume (Veh)	330.59			813.53	791.18	242.94	176.47			860.59	874.71	172.35
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	330.59			813.53	791.18	242.94	176.47			860.59	874.71	172.35
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1223.27			297.99	324.22	795.88	1411.90			278.10	290.02	866.07
Capacity	1223.27			241.89	275.50	795.88	1411.90			187.96	246.44	866.07

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	168.24	8.24	98.82	45.88	101.18	37.65	155.29	175.29	7.06	7.06	54.12
cmx, Capacity	1223.27			241.89	275.50	795.88	1411.90			187.96	246.44	866.07
V / C	0.12			0.41	0.17	0.13	0.03			0.04	0.03	0.06
d, Delay	8.35			37.60	35.79	10.18	7.62			25.15	20.61	10.16
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.81			25.98			0.78			12.79		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	176.47	144.71	101.18	368.24	68.24
Flared Storage Size						
cmx, Capacity			251.62		1411.90	530.25
V / C			0.58		0.26	0.13
Q95, 95% Queue Length			3.26		1.05	0.44
d, Delay			37.03		7.62	12.79
LOS			E		A	B
dA, Approach Delay	3.81		25.98		0.78	12.79
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.19	
Worst Case Delay	16.31	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	29.00	22.00	313.00	53.00	26.00	339.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	30.85	23.40	332.98	56.38	27.66	360.64

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	30.85	23.40			27.66	
Conflicting Volume (Veh)	777.13	361.17			389.36	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	777.13	361.17			389.36	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	363.89	687.96			1180.16	
Capacity	353.07	687.96			1180.16	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	30.85	23.40	332.98	56.38	27.66	360.64
cmx, Capacity	353.07	687.96			1180.16	
V / C	0.09	0.03			0.02	
d, Delay	16.31	11.34			8.12	
LOS	C	B			A	
dA, Approach Delay	14.17		0.00		0.58	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.24	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	54.26	389.36	388.30
Flared Storage Size			
cmx, Capacity	446.91		1180.16
V / C	0.12		0.33
Q95, 95% Queue Length	0.41		1.45
d, Delay	14.17		8.12
LOS	B		A
dA, Approach Delay	14.17	0.00	0.58
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.61	
Worst Case Delay	28.28	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	493.00	4.00	24.00	756.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	34.69	503.06	4.08	24.49	771.43	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	34.69		4.08	24.49		
Conflicting Volume (Veh)	772.45		1344.39	771.94		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	772.45		1344.39	771.94		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	838.23		168.89	396.36		
Capacity	838.23		161.90	396.36		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	34.69	503.06	4.08	24.49	771.43	1.02
cmx, Capacity	838.23		161.90	396.36		
V / C	0.04		0.03	0.06		
d, Delay	9.48		28.28	15.12		
LOS	A		D	C		
dA, Approach Delay	0.61		17.00		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	34.69	503.06	28.57	772.45
Flared Storage Size				
cmx, Capacity			328.41	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			17.00	
LOS			C	
dA, Approach Delay	0.61		17.00	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.3		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	2.00	49.00	2.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	2.13	52.13	2.13	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	2.13	14.89
PLT, Proportion LT	0.27	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.04	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.00	3.82	4.01	3.84
Difference, iteration 1	0.80	0.62	0.81	0.64
hd, iteration 2	4.03	3.88	4.04	3.90
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.88	4.04	3.90
x final, Degree of Utilization	0.09	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd, Departure Headway	4.03	3.88	4.04	3.90
x, Degree of Utilization	0.09	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.88	2.04	1.90
Capacity	893.72	926.32	891.39	923.35
Delay	7.44	6.94	7.31	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.31	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.3			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.17	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	180.00	169.00	1.00	57.00	102.00	166.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	197.80	185.71	1.10	62.64	112.09	182.42
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	383.52	1.10	174.73	182.42
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	185.71	1.10	112.09	182.42
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.48	1.00	0.64	1.00
PHV, Proportion HV	3.45	0.00	1.64	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.23	-0.60	-0.36	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	383.52	1.10	174.73	182.42
hd initial	3.20	3.20	3.20	3.20
x initial	0.34	0.00	0.16	0.16
hd, iteration 1	4.13	3.96	3.82	3.62
Difference, iteration 1	0.93	0.76	0.62	0.42
hd, iteration 2	4.20	4.15	3.91	3.68
Difference, iteration 2	0.07	0.19	0.08	0.06
hd, iteration 3	4.21	4.17	3.91	3.68
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.21	4.17	3.91	3.68
x final, Degree of Utilization	0.45	0.00	0.19	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	383.52	1.10	174.73	182.42
hd, Departure Headway	4.21	4.17	3.91	3.68
x, Degree of Utilization	0.45	0.00	0.19	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.21	2.17	1.91	1.68
Capacity	855.98	862.89	920.04	976.75
Delay	10.57	7.17	7.83	7.53
LOS	B	A	A	A
Q95, 95% Queue Length				
Approach Delay	10.57	7.17	7.83	7.53
Approach LOS	B	A	A	A
Intersection Delay	9.17			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.36	
Worst Case Delay	28.63	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	158.00	146.00	143.00	42.00	231.00	211.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	161.22	148.98	145.92	42.86	235.71	215.31

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	161.22		145.92	42.86		
Conflicting Volume (Veh)	451.02		814.80	343.37		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	451.02		814.80	343.37		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1120.15		349.84	701.62		
Capacity	1120.15		294.65	701.62		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	161.22	148.98	145.92	42.86	235.71	215.31
cmx, Capacity	1120.15		294.65	701.62		
V / C	0.14		0.50	0.06		
d, Delay	8.75		28.63	10.46		
LOS	A		D	B		
dA, Approach Delay	4.55		24.51		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.38				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	310.20	145.92	42.86	451.02
Flared Storage Size				
cmx, Capacity	1120.15			
V / C	0.28			
Q95, 95% Queue Length	1.14			
d, Delay	8.75			
LOS	A			
dA, Approach Delay	4.55	24.51		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.33	
Worst Case Delay	16.06	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	290.00	30.00	9.00	347.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	325.84	33.71	10.11	389.89

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	752.81	342.70			359.55	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	752.81	342.70			359.55	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	380.44	704.53			1210.27	
Capacity	376.31	704.53			1210.27	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	325.84	33.71	10.11	389.89
cmx, Capacity	376.31	704.53			1210.27	
V / C	0.12	0.04			0.01	
d, Delay	16.06	11.60			8.00	
LOS	C	B			A	
dA, Approach Delay	14.50		0.00		0.20	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	359.55	400.00
Flared Storage Size			
cmx, Capacity	449.43		1210.27
V / C	0.16		0.33
Q95, 95% Queue Length	0.55		1.46
d, Delay	14.50		8.00
LOS	B		A
dA, Approach Delay	14.50	0.00	0.20
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	10.74
Average LOS	B
V/C	0.65
Loss Time	8

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	131	142	173	0	287	17	0	85	124	114	447	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	35	38	47	0	77	5	0	23	33	31	120	1
Adjusted Volume	141	153	186	0	309	18	0	91	133	123	481	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	395	396	393	394	399	400	397	398
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	294	186	0	327	91	133	123	486
PLT, Proportion Left Turns	0.48	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.842	1.000	0.423	1.000	1.000	1.000	0.594	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.992	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1486	1485	762	1750	1782	1530	990	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	293.55	186.02	0	326.88	91.4	133.33	122.58	486.02
s, Saturation Flow Rate	1486	1485	762	1750	1782	1530	990	1762
c, Capacity	446	446	330	758	535	459	429	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.42	0	0.43	0.17	0.29	0.29	0.64
d1, Uniform Delay	9.16	8.40	4.82	5.92	7.75	8.05	5.50	6.65
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.42	2.86	0.00	1.79	0.69	1.60	1.67	4.03
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.58	11.27	4.82	7.71	8.44	9.65	7.16	10.68
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.52		7.71		9.16		9.97	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.74							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	395	396	393	394	399	400	397	398
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.13	1.24	0.00	1.90	0.56	0.85	0.66	3.17
Q2, Second-term Queued	0.56	0.21	0.00	0.33	0.07	0.13	0.12	0.75
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.24	0.44	0.34	0.31	0.29	0.44
Q, Average Back of Queue	2.70	1.45	0.00	2.23	0.63	0.98	0.78	3.92
fB%, % Factor	1.79	1.87	2.00	1.82	1.94	1.91	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.83	2.73	0.00	4.05	1.23	1.87	1.50	6.78

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.19	0.05	0.09	0.12	0.28
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	395	396	393	394	399	400	397	398
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	140.86		0.00				122.58	
PLT, Proportion LT in Lane	0.48		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.17		0.00				1.02	
Vo, Opposing Flow	91.40		486.02				326.88	
Volc, Adjusted Opposing F	0.80		4.05				2.72	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.29				0.00	
gu	9.00		10.71				13.00	
PL	0.48		1.00				1.00	
de facto caused by PL >=								
EL1	1.39		1.95				1.68	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.84		0.42				0.59	
fLT, Left Turn Adjustment	0.84	1.00	0.42	1.00	1.00	1.00	0.59	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	17.54
Average LOS	B
V/C	0.31
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	77	272	42	3	10	83	151	24	582	88	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	20	72	11	1	3	22	40	6	153	23	0
Adjusted Volume	14	81	286	44	3	11	87	159	25	613	93	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	404	405	406	401	402	403	410	407	409
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	95	215	72	24	20	14	272	613	93
PLT, Proportion Left Turns	0.14	0.00	0.00	1.00	1.00	0.00	0.32	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	0.77	0.09	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	404	405	406	401	402	403	410	407		409
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.951	1.000	1.000	0.950	0.736	1.000	0.895	0.950	0.790	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.885	0.987	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1711	1485	1485	1710	1324	1546	1576	1676	1394	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	404	405	406	401	402	403	410	407	409	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	94.74	214.74	71.58	24.32	19.89	13.68	271.58	335	277	92.63
s, Saturation Flow Rate	1711	1485	1485	1710	1324	1546	1576	613		1800
								1676	1394	
c, Capacity	542	470	248	114	375	438	499	1504		690
								335	442	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	777		0.38
								0.20	0.32	
X, Volume / Capacity	0.17	0.46	0.29	0.21	0.05	0.03	0.54	0.52		0.13
								1.00	0.63	
d1, Uniform Delay	14.83	12.28	5.47	14.58	7.04	15.55	16.93	0.79		12.03
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	11.16		0.50
d2, Incremental Delay,	0.70	3.17	2.93	4.23	0.27	0.13	4.22	0.50		0.40
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.97		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		1.00
d, Delay	15.53	15.45	8.40	18.81	7.31	15.68	21.15	1.00		12.43
LOS	B	B	A	B	A	B	C	19.13		B
dA, Approach Delay	14.15			14.12			21.15	18.25		
Approach LOS	B			B			C	B		
dI, Intersection Delay	17.54									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.56	0.51	0.32	0.19	0.43	0.48	0.53	0.72	0.66
Q, Average Back of Queue	1.26	3.28	1.18	0.43	0.27	0.18	4.36	10.73	1.11
fB%, % Factor	1.89	1.76	1.90	1.96	1.97	1.98	1.71	1.56	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	2.38	5.77	2.23	0.85	0.52	0.36	7.44	16.73	2.10

Signal Timing Information

Approach	N			E			S	W		
Lane Group	404	405	406	401	402	403	410	407		409
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.06	0.14	0.05	0.01	0.02	0.01	0.17	0.20	0.20	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	404	405	406	401	402	403	410	407		409
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				44.21		87.37		612.63	
PLT, Proportion LT in Lane	0.14				1.00		0.32		1.00	
PLTo, Proportion LT in Opposing Flow	0.32				0.00		0.04		0.00	
LT Volume per Cycle	0.23				0.74		1.46		10.21	
Vo, Opposing Flow	271.58				92.63		94.74		13.68	
Volc, Adjusted Opposing Flow	4.53				1.54		1.66		0.23	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		1.39		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	5.43				0.00		0.00		0.00	
gu	10.47				17.00		17.61		19.00	
PL	0.14				1.00		0.32		1.00	
de facto caused by PL >= 0.14										
EL1	1.68				1.36		1.40		1.27	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.95				0.74		0.90		0.79	
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.95	0.74	1.00	0.90	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				64.05								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	134	253	21	358	326	68	36	235	417	41	309	33
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	84	18	9	61	107	11	80	9
Adjusted Volume	138	261	22	369	336	70	37	242	430	42	319	34

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	413	414	411	412	417	418	419	415	416
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138	282	369	406	279	115	315	42	353
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.10

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	413	414	411	412	417	418	419	415	416
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjus	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustmen	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.986
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1774

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	413	414	411	412	417	418	419	415	416
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138.14	282.47	369.07	406.19	279.38	114.64	315.26	42.27	352.58
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1774
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.49	1	0.99	0.57	0.84	0.34	1.1	0.74	0.89
d1, Uniform Delay	34.03	37.50	34.91	20.37	35.22	7.85	26.77	43.12	33.97
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.96	53.59	44.36	3.28	22.28	2.74	83.26	59.83	25.25
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.99	91.09	79.26	23.65	57.50	10.59	110.02	102.94	59.23
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	74.31		50.13		73.26			63.91	
Approach LOS	E		D		E			E	
dI, Intersection Delay	64.05								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	413	414	411	412	417	418	419	415	416
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.13	7.06	9.20	7.81	6.74	2.41	7.88	1.05	8.56
Q2, Second-term Queued	0.44	4.08	4.93	1.16	2.14	0.27	6.52	0.37	3.14
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.57	11.14	14.13	8.96	8.88	2.68	14.40	1.42	11.70
fB%, % Factor	1.74	1.55	1.53	1.58	1.58	1.79	1.53	1.88	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.24	17.32	21.61	14.19	14.07	4.81	22.00	2.66	18.11

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	413	414	411	412	417	418	419	415	416
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation Flow	0.08	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	413	414	411	412	417	418	419	415	416
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Multiple(M)									
Opposed by Single(S) or Multiple(M)									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opposing Flow									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane Group									
PLTo, Proportion LT in Opposing Flow									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing Flow									
FLUo, Opposing Lane Utilization									
Rpo, Opposing Platoon Ratio									
gf									
qro, Opposing Queue Ratio									
gq, Opposing Queue Clearance									
gu									
PL									
de facto caused by PL >= 0.5									
EL1									
EL2									
gdifff									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	24.55	
		Average LOS	C	
		V/C	0.51	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	249	0	270	125	81	89
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	68	0	73	34	22	24
Adjusted Volume	0	0	0	271	0	293	136	88	97

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	426	425	428	429	427
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	271	293	136	185
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.52

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	426	425	428	429	427
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.626	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.929
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1094	1424	1530	1656

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	426	425	428	429	427
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	270.65	293.48	135.87	184.78
s, Saturation Flow Rate	1800	1094	1424	1530	1656
c, Capacity	1040	340	823	884	515
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.8	0.36	0.15	0.36
d1, Uniform Delay	8.02	28.38	10.10	8.80	24.04
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	17.29	1.21	0.37	1.94
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	45.66	11.31	9.17	25.98
LOS	A	D	B	A	C
dA, Approach Delay	8.02	45.66	10.63		25.98
Approach LOS	A	D	B		C
dI, Intersection Delay	24.55				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	426	425	428	429	427
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	6.19	3.90	1.57	3.58
Q2, Second-term Queued	0.00	1.74	0.55	0.19	0.40
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.54	1.00	1.05	0.72
Q, Average Back of Queue	0.00	7.93	4.45	1.76	3.98
fB%, % Factor	2.00	1.60	1.71	1.85	1.73
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	12.71	7.59	3.27	6.87

Signal Timing Information					
Approach	N	E	S		W
Lane Group	426	425	428	429	427
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.25	0.21	0.09	0.11
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	426	425	428	429	427
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	270.65	293.48		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.68	0.00	0.00		
LT Volume per Cycle	0.00	6.77	7.34		
Vo, Opposing Flow	0.00	184.78	0.00		
Volc, Adjusted Opposing F	0.00	4.62	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	2.09	0.00		
gu	5.00	25.91	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.48	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.63	0.80		
fLT, Left Turn Adjustment	1.00	0.63	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				8.44								
Average LOS				A								
V/C				0.58								
Loss Time				9								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	382	44	15	37	71	78	588	14
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	101	12	4	10	19	21	155	4
Adjusted Volume	75	33	42	56	402	46	16	39	75	82	619	15

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	432	433	430	431	436	437	434	435
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	448	55	75	82	634
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	432	433	430	431	436	437	434	435
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.370	1.000	0.894	1.000	0.519	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.985	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	653	1704	1610	1530	935	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	432	433	430	431	436	437	434	435
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	448.42	54.74	74.74	82.11	633.68
s, Saturation Flow Rate	1461	1530	653	1704	1610	1530	935	1759
c, Capacity	244	255	381	994	268	255	545	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.15	0.45	0.2	0.29	0.15	0.62
d1, Uniform Delay	13.49	12.85	3.42	4.24	12.94	13.14	3.43	4.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.81	1.48	1.71	2.90	0.58	2.79
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.23	5.72	14.65	16.04	4.01	7.68
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.56		15.45		7.26	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.44							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	432	433	430	431	436	437	434	435
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.54	0.47	0.65	0.38	4.13
Q2, Second-term Queued	0.17	0.05	0.05	0.49	0.06	0.10	0.07	0.97
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.39	0.61
Q, Average Back of Queue	1.14	0.41	0.31	3.02	0.53	0.75	0.44	5.10
fB%, % Factor	1.90	1.96	1.97	1.77	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.36	1.04	1.45	0.87	8.57

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	432	433	430	431	436	437	434	435
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	432	433	430	431	436	437	434	435
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		633.68		107.37		448.42	
Volc, Adjusted Opposing F	0.57		6.34		1.13		4.48	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.65		0.00		0.48	
gu	6.00		17.35		5.92		20.52	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.23		1.42		1.88	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.37		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.37	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				6.94								
Worst Case Delay				86.32								
Worst Case LOS				F								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	11.00	6.00	199.00	256.00	9.00	0.00	55.00	39.00	12.00	633.00	40.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	11.34	6.19	205.15	263.92	9.28	0.00	56.70	40.21	12.37	652.58	41.24

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	11.34	6.19	205.15			0.00	56.70	40.21	12.37		
Conflicting Volume (Veh)	1425.26	1397.42	268.56	693.81			1385.57	1381.44	673.20	273.20		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1425.26	1397.42	268.56	693.81			1385.57	1381.44	673.20	273.20		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	114.33	136.82	774.96	878.74			116.98	145.37	458.57	1301.68		
Capacity	47.06	97.18	774.96	878.74			82.40	103.25	458.57	1301.68		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjusted	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjusted	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	11.34	6.19	205.15	263.92	9.28	0.00	56.70	40.21	12.37	652.58	41.24
cmx, Capacity	47.06	97.18	774.96	878.74			82.40	103.25	458.57	1301.68		
V / C	0.02	0.12	0.01	0.23			0.00	0.55	0.09	0.01		
d, Delay	86.32	46.87	14.47	10.34			82.98	74.16	47.14	7.79		
LOS	F	E	B	B			F	F	E	A		
dA, Approach Delay	38.26			4.43			62.95			0.14		
Approach LOS	E						F					
dRank1, Rank 1 Delay				2.88						0.13		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	18.56	478.35	96.91	706.19
Flared Storage Size				
cmx, Capacity	126.59	878.74	152.17	1301.68
V / C	0.15	0.54	0.64	0.54
Q95, 95% Queue Length	0.50	3.36	3.49	3.40
d, Delay	38.26	10.34	62.95	7.79
LOS	E	B	F	A
dA, Approach Delay	38.26	4.43	62.95	0.14
Approach LOS	E		F	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.76								
Worst Case Delay				33.67								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	17.00	479.00	9.00	11.00	0.00	0.00	10.00	616.00	18.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	18.68	526.37	9.89	12.09	0.00	0.00	10.99	676.92	19.78

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	18.68			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1267.58	1287.36	531.32	696.70			1276.92	1282.42	686.81	536.26		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1267.58	1287.36	531.32	696.70			1276.92	1282.42	686.81	536.26		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	146.89	165.56	551.90	881.03			144.73	166.69	443.56	992.49		
Capacity	143.29	160.26	551.90	881.03			137.60	161.35	443.56	992.49		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	18.68	526.37	9.89	12.09	0.00	0.00	10.99	676.92	19.78
cmx, Capacity	143.29	160.26	551.90	881.03			137.60	161.35	443.56	992.49		
V / C	0.03	0.02	0.01	0.02			0.09	0.00	0.00	0.01		
d, Delay	31.21	28.55	12.61	9.17			33.67	29.82	15.62	8.67		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	22.79			0.31			33.67			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	18.68	536.26	12.09	10.99	696.70
Flared Storage Size						
cmx, Capacity	215.46			137.60		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.19			0.28		
d, Delay	22.79			33.67		
LOS	C			D		
dA, Approach Delay	22.79	0.31		33.67	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.57	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	95.00	0.00	36.00	215.00	36.00	17.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	113.10	0.00	42.86	255.95	42.86	20.24
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	298.81	20.24
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	0.00	42.86	42.86	20.24
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.00	1.00	0.14	1.00
PHV, Proportion HV	3.00	0.00	4.73	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.05	-0.60	-0.01	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	298.81	20.24
hd initial	3.20	3.20	3.20	3.20
x initial	0.10	0.04	0.27	0.02
hd, iteration 1	4.21	3.50	4.05	3.82
Difference, iteration 1	1.01	0.30	0.85	0.62
hd, iteration 2	4.27	3.56	4.09	3.95
Difference, iteration 2	0.07	0.06	0.03	0.14
hd, iteration 3	4.28	3.56	4.09	3.96
Difference, iteration 3	0.00	0.00	0.00	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.28	3.56	4.09	3.96
x final, Degree of Utilization	0.13	0.04	0.34	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	298.81	20.24
hd, Departure Headway	4.28	3.56	4.09	3.96
x, Degree of Utilization	0.13	0.04	0.34	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.28	1.56	2.09	1.96
Capacity	841.37	1010.74	879.21	909.25
Delay	7.94	6.72	9.18	7.05
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.94	6.72	9.18	7.05
Approach LOS	A	A	A	A
Intersection Delay	8.57			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.33	
Worst Case Delay	10.23	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	28.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	38.36	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			50.68		218.49	44.52
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			50.68		218.49	44.52
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1568.62		774.20	1031.15
Capacity			1568.62		740.28	1031.15

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	38.36	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1568.62		740.28	1031.15
V / C			0.04		0.00	0.09
d, Delay			7.40		10.23	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	50.68	106.85	95.89
Flared Storage Size			
cmx, Capacity		1568.62	1019.70
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	17.97	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	442.00	6.00	3.00	390.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	491.11	6.67	3.33	433.33	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		6.67	3.33		
Conflicting Volume (Veh)	440.00		954.44	436.67		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	440.00		954.44	436.67		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1068.77		289.30	624.03		
Capacity	1068.77		284.23	624.03		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	491.11	6.67	3.33	433.33	6.67
cmx, Capacity	1068.77		284.23	624.03		
V / C	0.01		0.02	0.01		
d, Delay	8.41		17.97	11.08		
LOS	A		C	B		
dA, Approach Delay	0.22		15.67		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	504.44	10.00	440.00
Flared Storage Size			
cmx, Capacity	1068.77	347.26	
V / C	0.47	0.03	
Q95, 95% Queue Length	2.59	0.09	
d, Delay	8.41	15.67	
LOS	A	C	
dA, Approach Delay	0.22	15.67	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.41	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	429.00	8.00	8.00	389.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	482.02	8.99	8.99	437.08	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	441.57		964.04	439.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	441.57		964.04	439.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1129.15		285.53	621.89		
Capacity	1129.15		278.00	621.89		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	482.02	8.99	8.99	437.08	4.49
cmx, Capacity	1129.15		278.00	621.89		
V / C	0.02		0.03	0.01		
d, Delay	8.25		18.41	11.25		
LOS	A		C	B		
dA, Approach Delay	0.35		14.83		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.37	17.98	441.57
Flared Storage Size			
cmx, Capacity	1129.15	384.24	
V / C	0.45	0.05	
Q95, 95% Queue Length	2.34	0.15	
d, Delay	8.25	14.83	
LOS	A	B	
dA, Approach Delay	0.35	14.83	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.63	
Worst Case Delay	9.25	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	13.00	0.00	52.00	15.00	11.00	33.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	14.77	0.00	59.09	17.05	12.50	37.50

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	14.77	0.00			12.50	
Conflicting Volume (Veh)	130.11	67.61			76.14	
Conflicting Volume (Ped)	0.00				0.00	
Conflicting Volume	130.11	67.61			76.14	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	868.87	947.62			1485.57	
Capacity	861.40	947.62			1485.57	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	14.77	0.00	59.09	17.05	12.50	37.50
cmx, Capacity	861.40	947.62			1485.57	
V / C	0.02	0.00			0.01	
d, Delay	9.25	8.87			7.44	
LOS	A	A			A	
dA, Approach Delay	9.25		0.00		1.86	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	14.77	76.14	50.00
Flared Storage Size			
cmx, Capacity	861.40		1485.57
V / C	0.02		0.03
Q95, 95% Queue Length	0.05		0.10
d, Delay	9.25		7.44
LOS	A		A
dA, Approach Delay	9.25	0.00	1.86
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.73	
Worst Case Delay	12.97	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	179.00	69.00	77.00	119.00	3.00	78.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	190.43	73.40	81.91	126.60	3.19	82.98

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			81.91		3.19	82.98
Conflicting Volume (Veh)			263.83		517.55	227.13
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			263.83		517.55	227.13
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1294.47		521.60	804.78
Capacity			1294.47		485.93	804.78

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	190.43	73.40	81.91	126.60	3.19	82.98
cmx, Capacity			1294.47		485.93	804.78
V / C			0.06		0.01	0.10
d, Delay			7.97		12.97	10.04
LOS			A		B	B
dA, Approach Delay	0.00		3.13		10.15	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.54			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	263.83	208.51	86.17
Flared Storage Size			
cmx, Capacity		1294.47	785.69
V / C		0.16	0.11
Q95, 95% Queue Length		0.57	0.37
d, Delay		7.97	10.15
LOS		A	B
dA, Approach Delay	0.00	3.13	10.15
Approach LOS			B

Scenario 17

Monroe St Alignment without diverter at Linwood

Node 10386: King Rd & Linwood Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		66.73	
Average LOS		E	
V/C		0.96	
Loss Time		16	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	97	385	0	87	265	77	118	475	97
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	100	0	23	69	20	31	124	25
Adjusted Volume	41	269	82	101	401	0	91	276	80	123	495	101

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	446	447	444	445	450	451	448	449
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	101	401	91	356	123	596
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.23	0.00	0.17

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	446	447	444	445	450	451	448	449
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.966	1.000	0.975
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1722	1676	1703

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	446	447	444	445	450	451	448	449
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	101.04	401.04	90.63	356.25	122.92	595.83
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1722	1676	1703
c, Capacity	46	470	91	504	117	547	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.11	0.8	0.77	0.65	1.03	1.16
d1, Uniform Delay	27.17	18.58	26.45	18.49	25.55	16.43	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	127.21	12.25	37.85	5.91	89.49	91.61
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	153.66	30.74	63.40	22.34	115.49	111.16
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		55.47		30.66		111.90	
Approach LOS	D		E		C		F	
dI, Intersection Delay	66.73							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	446	447	444	445	450	451	448	449
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.57	5.77	1.39	4.77	1.91	9.27
Q2, Second-term Queued	0.44	1.31	2.15	1.74	0.53	0.96	1.90	13.15
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.72	7.50	1.92	5.73	3.81	22.41
fB%, % Factor	1.90	1.64	1.74	1.61	1.84	1.66	1.73	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.47	12.09	3.53	9.50	6.60	33.75

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	446	447	444	445	450	451	448	449
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.21	0.07	0.35
Critical Lane Group					Y	Y	Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	446	447	444	445	450	451	448	449
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.75	
Average LOS	A	
V/C	0.7	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1797	40	1645	13	87
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	483	11	442	3	23
Adjusted Volume	1932	43	1769	14	94

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	456	455	452	454	458
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1932	43	1769	14	94
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	456	455	452	454	458
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	456	455	452	454	458
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1932.26	43.01	1768.82	13.98	93.55
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.66	0.01	0.51
d1, Uniform Delay	5.72	48.15	5.12	2.42	49.81
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.77	3.05	1.33	0.02	10.06
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.49	51.19	6.45	2.44	59.87
LOS	A	D	A	A	E
dA, Approach Delay	7.49	51.19	6.42		59.87
Approach LOS	A	D	A		E
dI, Intersection Delay	8.75				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	456	455	452	454	458
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.14	1.30	13.22	0.09	2.93
Q2, Second-term Queued	4.29	0.13	3.31	0.02	0.43
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.43	1.43	16.53	0.11	3.36
fB%, % Factor	1.51	1.88	1.52	1.99	1.76
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.82	2.69	25.10	0.22	5.90

Signal Timing Information					
Approach	N	E	S		W
Lane Group	456	455	452	454	458
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.03	0.53	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	456	455	452	454	458
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.57								
Average LOS				D								
V/C				0.83								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	99	1661	151	90	208	143	207	1484	103	25	127	30
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	26	442	40	24	55	38	55	395	27	7	34	8
Adjusted Volume	105	1767	161	96	221	152	220	1579	110	27	135	32

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	468	469	471	463	464	466	467	459	460	462	472	473	475
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	105	1767	161	96	221	35	117	220	1579	110	27	135	32
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	468	469	471	463	464	466	467	459	460	462	472	473	475
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.692	1.000	1.000	1.000	0.950	1.000	1.000	0.550	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	991	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	468	469	471	463	464	466	467	459	460	462	472	473	475
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	105.32	1767.02	160.64	95.74	221.28	35.5	116.63	220.21	1578.72	109.57	26.6	135.11	31.91
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	991	3427	1530
c, Capacity	335	1988	896	224	628	303	278	182	1664	750	182	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.31	0.89	0.18	0.43	0.35	0.12	0.42	1.21	0.95	0.15	0.15	0.22	0.11
d1, Uniform Delay	40.97	21.10	11.19	43.42	42.78	9.17	33.24	53.50	28.54	16.18	41.12	41.66	40.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.44	6.42	0.44	5.87	1.55	0.79	4.61	135.53	12.88	0.41	1.69	0.78	0.82
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.41	27.52	11.63	49.30	44.33	9.96	37.85	189.03	41.42	16.59	42.81	42.44	41.69
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	27.09			41.13				57.03			42.37		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.57												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	468	469	471	463	464	466	467	459	460	462	472	473	475
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.00	26.64	2.45	2.83	3.38	0.97	3.44	7.34	26.30	1.97	0.74	2.01	0.89
Q2, Second-term Queued	0.29	7.57	0.28	0.36	0.35	0.08	0.40	6.59	9.02	0.19	0.07	0.18	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.49	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	3.29	34.21	2.73	3.19	3.73	1.05	3.84	13.93	35.32	2.17	0.82	2.19	0.96
fB%, % Factor	1.76	1.50	1.79	1.76	1.74	1.91	1.73	1.53	1.50	1.82	1.92	1.82	1.91
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.79	51.33	4.88	5.62	6.47	2.00	6.66	21.33	52.99	3.95	1.57	3.99	1.84

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	468	469	471	463	464	466	467	459	460	462	472	473	475
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.11	0.08	0.06	0.02	0.08	0.13	0.47	0.07	0.03	0.04	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	468	469	471	463	464	466	467	459	460	462	472	473	475
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				95.74							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.19							0.89		
Vo, Opposing Flow				135.11							221.28		
Volc, Adjusted Opposing F				2.48							4.06		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.23							3.12		
gu				21.77							18.88		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.43							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.69							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.69	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.27	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	271	1644	22	83	236	126	55	1605	43	7	298	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	71	428	6	22	61	33	14	418	11	2	78	15
Adjusted Volume	282	1713	23	86	246	131	57	1672	45	7	310	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	492	493	495	490	486	487	489	496
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	282	1713	23	464	57	1672	45	376
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.28	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	492	493	495	490	486	487	489	496
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.696	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.958	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2177	1613	3360	1471	3045

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	492	493	495	490	486	487	489	496
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	282.29	1712.5	22.92	463.54	57.29	1671.88	44.79	376.04
s, Saturation Flow Rate	1710	3327	1530	2177	1613	3360	1471	3045
c, Capacity	309	1897	872	481	149	1618	709	672
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.91	0.9	0.03	0.96	0.38	1.03	0.06	0.56
d1, Uniform Delay	48.22	22.86	11.26	46.28	51.23	31.10	16.63	41.56
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	33.08	7.53	0.06	33.07	7.32	31.36	0.17	3.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	81.31	30.39	11.32	79.36	58.56	62.46	16.80	44.90
LOS	F	C	B	E	E	E	B	D
dA, Approach Delay	37.30			79.36	61.18			44.90
Approach LOS	D			E	E			D
dI, Intersection Delay	51.27							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	492	493	495	490	486	487	489	496
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.23	26.56	0.33	8.03	1.80	29.27	0.80	5.85
Q2, Second-term Queued	3.27	7.85	0.03	3.50	0.23	13.58	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.50	34.42	0.37	11.54	2.02	42.85	0.87	6.67
fB%, % Factor	1.54	1.50	1.96	1.55	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.26	51.64	0.72	17.88	3.71	64.29	1.67	10.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	492	493	495	490	486	487	489	496
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.17	0.51	0.01	0.21	0.04	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	492	493	495	490	486	487	489	496
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				86.46				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Op				0.02				0.19
LT Volume per Cycle				2.88				0.24
Vo, Opposing Flow				376.04				463.54
Volc, Adjusted Opposing F				6.58				8.12
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Re				1.00				1.00
gf				0.03				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.52				10.62
gu				18.98				11.26
PL				0.53				0.04
de facto caused by PL >=								
EL1				1.91				2.10
EL2				26.44				0.00
gdif				0.00				0.00
fm				0.48				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.70	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.63
Worst Case Delay	12.23
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	432.00	53.00	396.00	154.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	474.73	58.24	435.16	169.23

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		58.24		
Conflicting Volume (Veh)		519.78		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		519.78		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		556.27		
Capacity		556.27		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	474.73	58.24	435.16	169.23
cmx, Capacity		556.27		
V / C		0.10		
d, Delay		12.23		
LOS		B		
dA, Approach Delay	0.00	12.23	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	474.73	58.24	604.40
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.23	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.84	
Average LOS	B	
V/C	0.45	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	370	85	166	431
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	97	22	44	113
Adjusted Volume	89	118	389	89	175	454

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	513	512	514	516
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	479	175	454
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.19	0.00	0.00

Saturation Flow Rate					
Approach	N	E	W		
Lane Group	513	512	514		516
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
so, Base Saturation Flow Rate	1800	1800	1800		1800
N, Number of Lanes	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000		3.000
fHV, HV Adjustment	1.000	0.971	0.990		0.971
fg, Grade Adjustment	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000		1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.353	1.000
fRT, Right Turn Adjustment	0.923	0.975	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000		1.000
Has Short Lane					
s, Saturation Flow Rate	1627	1703	1693	629	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	513	512	514	516	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	478.95	132	43	453.68
			175		
s, Saturation Flow Rate	1627	1703	1693	629	1748
			778		
c, Capacity	560	757	132	301	971
			432		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.63	1.00	0.14	0.47
			0.40		
d1, Uniform Delay	22.16	19.32	11.19		12.01
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.00	2.80		1.62
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.32	13.98		13.62
LOS	C	C	B		B
dA, Approach Delay	24.04	23.32	13.72		
Approach LOS	C	C	B		
dI, Intersection Delay	18.84				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	513	512	514	516
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.25	2.50	6.81
Q2, Second-term Queued	0.44	1.55	0.43	0.97
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	10.80	2.93	7.78
fB%, % Factor	1.71	1.56	1.78	1.61
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	16.83	5.21	12.48

Signal Timing Information					
Approach	N	E	W		
Lane Group	513	512	514		516
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.26
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	513	512	514	516	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				478.95	
Volc, Adjusted Opposing Flow				11.97	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.63	
gu				29.37	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.94	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		3.67						
				Worst Case Delay		26.5						
				Worst Case LOS		D						

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	26.00	384.00	35.00	14.00	0.00	94.00	6.00	305.00	23.00	18.00	34.00	40.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	28.57	421.98	38.46	15.38	0.00	103.30	6.59	335.16	25.27	19.78	37.36	43.96

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	28.57			15.38	0.00	103.30	6.59			19.78	37.36	43.96
Conflicting Volume (Veh)	360.44			900.00	878.57	347.80	460.44			910.99	871.98	441.21
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	360.44			900.00	878.57	347.80	460.44			910.99	871.98	441.21
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1171.03			261.58	288.53	695.34	1111.24			257.14	288.91	607.79
Capacity	1171.03			210.96	276.77	695.34	1111.24			212.13	277.14	607.79

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	28.57	421.98	38.46	15.38	0.00	103.30	6.59	335.16	25.27	19.78	37.36	43.96
cmx, Capacity	1171.03			210.96	276.77	695.34	1111.24			212.13	277.14	607.79
V / C	0.02			0.07	0.00	0.15	0.01			0.09	0.13	0.07
d, Delay	8.15			23.97	19.91	12.08	8.26			26.50	22.52	15.45
LOS	A			C	C	B	A			D	C	C
dA, Approach Delay	0.48			13.62			0.15			20.22		
Approach LOS				B						C		
dRank1, Rank 1 Delay	0.27						0.06					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	489.01	118.68	367.03	101.10
Flared Storage Size				
cmx, Capacity	1171.03	535.85	1111.24	336.57
V / C	0.42	0.22	0.33	0.30
Q95, 95% Queue Length	2.10	0.84	1.46	1.24
d, Delay	8.15	13.62	8.26	20.22
LOS	A	B	A	C
dA, Approach Delay	0.48	13.62	0.15	20.22
Approach LOS		B		C

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.7								
Worst Case Delay				12.79								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	24.00	107.00	23.00	73.00	20.00	15.00	7.00	33.00	47.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	26.09	116.30	25.00	79.35	21.74	16.30	7.61	35.87	51.09	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	26.09	116.30	25.00	79.35			7.61	35.87	51.09	5.43		
Conflicting Volume (Veh)	267.39	232.07	29.89	32.61			294.57	232.07	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	267.39	232.07	29.89	32.61			294.57	232.07	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	689.34	668.02	1036.06	1592.47			653.70	669.77	1057.68	1585.26		
Capacity	601.86	631.76	1036.06	1592.47			525.66	633.41	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	26.09	116.30	25.00	79.35	21.74	16.30	7.61	35.87	51.09	5.43	16.30	16.30
cmx, Capacity	601.86	631.76	1036.06	1592.47			525.66	633.41	1057.68	1585.26		
V / C	0.04	0.18	0.02	0.05			0.01	0.06	0.05	0.00		
d, Delay	12.79	12.51	10.28	7.38			12.46	11.30	9.02	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.22			4.99			10.16			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.38						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	167.39	117.39	94.57	38.04
Flared Storage Size				
cmx, Capacity	665.39	1592.47	791.97	1585.26
V / C	0.25	0.07	0.12	0.02
Q95, 95% Queue Length	0.99	0.24	0.40	0.07
d, Delay	12.22	7.38	10.16	7.28
LOS	B	A	B	A
dA, Approach Delay	12.22	4.99	10.16	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.78								
Worst Case Delay				36.13								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	124.00	129.00	7.00	83.00	38.00	89.00	32.00	125.00	145.00	6.00	12.00	56.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	145.88	151.76	8.24	97.65	44.71	104.71	37.65	147.06	170.59	7.06	14.12	65.88

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	145.88			97.65	44.71	104.71	37.65			7.06	14.12	65.88
Conflicting Volume (Veh)	317.65			791.18	759.41	232.35	160.00			830.00	840.59	155.88
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	317.65			791.18	759.41	232.35	160.00			830.00	840.59	155.88
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1236.78			308.50	338.20	806.77	1431.53			291.62	303.56	884.55
Capacity	1236.78			243.14	288.66	806.77	1431.53			199.12	259.09	884.55

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	145.88	151.76	8.24	97.65	44.71	104.71	37.65	147.06	170.59	7.06	14.12	65.88
cmx, Capacity	1236.78			243.14	288.66	806.77	1431.53			199.12	259.09	884.55
V / C	0.12			0.40	0.15	0.13	0.03			0.04	0.05	0.07
d, Delay	8.30			36.13	33.79	10.13	7.58			24.41	20.23	10.40
LOS	A			E	D	B	A			C	C	B
dA, Approach Delay	3.96			24.69			0.80			13.13		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	145.88	160.00	142.35	104.71	355.29	87.06
Flared Storage Size						
cmx, Capacity			255.81		1431.53	529.49
V / C			0.56		0.25	0.16
Q95, 95% Queue Length			3.09		0.98	0.58
d, Delay			35.39		7.58	13.13
LOS			E		A	B
dA, Approach Delay	3.96		24.69		0.80	13.13
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.44	
Worst Case Delay	16.85	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	32.00	22.00	312.00	50.00	41.00	324.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	34.04	23.40	331.91	53.19	43.62	344.68

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	34.04	23.40			43.62	
Conflicting Volume (Veh)	790.43	358.51			385.11	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	790.43	358.51			385.11	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	357.38	690.32			1184.41	
Capacity	340.87	690.32			1184.41	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	34.04	23.40	331.91	53.19	43.62	344.68
cmx, Capacity	340.87	690.32			1184.41	
V / C	0.10	0.03			0.04	
d, Delay	16.85	11.51			8.16	
LOS	C	B			A	
dA, Approach Delay	14.67		0.00		0.92	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.38	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	57.45	385.11	388.30
Flared Storage Size			
cmx, Capacity	429.43		1184.41
V / C	0.13		0.33
Q95, 95% Queue Length	0.46		1.44
d, Delay	14.67		8.16
LOS	B		A
dA, Approach Delay	14.67	0.00	0.92
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.61	
Worst Case Delay	28.21	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	493.00	4.00	24.00	752.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	34.69	503.06	4.08	24.49	767.35	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	34.69		4.08	24.49		
Conflicting Volume (Veh)	772.45		1342.35	769.90		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	772.45		1342.35	769.90		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	838.23		169.37	397.43		
Capacity	838.23		162.36	397.43		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	34.69	503.06	4.08	24.49	767.35	5.10
cmx, Capacity	838.23		162.36	397.43		
V / C	0.04		0.03	0.06		
d, Delay	9.48		28.21	15.09		
LOS	A		D	C		
dA, Approach Delay	0.61		16.97		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	34.69	503.06	28.57	772.45
Flared Storage Size				
cmx, Capacity			329.32	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			16.97	
LOS			C	
dA, Approach Delay	0.61		16.97	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.32								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	54.00	7.00	4.00	0.00	8.00	2.00	49.00	3.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	57.45	7.45	4.26	0.00	8.51	2.13	52.13	3.19	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	57.45	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	3.19	14.89
PLT, Proportion LT	0.26	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.06	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.03	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	57.45	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.01	0.05	0.02
hd, iteration 1	4.00	3.83	4.00	3.85
Difference, iteration 1	0.80	0.63	0.80	0.65
hd, iteration 2	4.03	3.90	4.03	3.91
Difference, iteration 2	0.02	0.07	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.90	4.03	3.91
x final, Degree of Utilization	0.10	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	57.45	23.40
hd, Departure Headway	4.03	3.90	4.03	3.91
x, Degree of Utilization	0.10	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.90	2.03	1.91
Capacity	893.55	923.94	893.06	920.47
Delay	7.46	6.95	7.31	7.01
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.46	6.95	7.31	7.01
Approach LOS	A	A	A	A
Intersection Delay	7.32			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.25	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	185.00	171.00	1.00	56.00	100.00	165.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	203.30	187.91	1.10	61.54	109.89	181.32
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	391.21	1.10	171.43	181.32
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	187.91	1.10	109.89	181.32
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.48	1.00	0.64	1.00
PHV, Proportion HV	3.44	0.00	1.64	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.23	-0.60	-0.36	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	391.21	1.10	171.43	181.32
hd initial	3.20	3.20	3.20	3.20
x initial	0.35	0.00	0.15	0.16
hd, iteration 1	4.12	3.97	3.83	3.61
Difference, iteration 1	0.92	0.77	0.63	0.41
hd, iteration 2	4.19	4.17	3.91	3.67
Difference, iteration 2	0.07	0.19	0.08	0.06
hd, iteration 3	4.20	4.18	3.92	3.68
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.20	4.18	3.92	3.68
x final, Degree of Utilization	0.46	0.00	0.19	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	391.21	1.10	171.43	181.32
hd, Departure Headway	4.20	4.18	3.92	3.68
x, Degree of Utilization	0.46	0.00	0.19	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.20	2.18	1.92	1.68
Capacity	856.53	859.60	917.91	978.31
Delay	10.68	7.19	7.82	7.51
LOS	B	A	A	A
Q95, 95% Queue Length				
Approach Delay	10.68	7.19	7.82	7.51
Approach LOS	B	A	A	A
Intersection Delay	9.25			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.31	
Worst Case Delay	28.46	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	155.00	152.00	144.00	42.00	226.00	215.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	158.16	155.10	146.94	42.86	230.61	219.39

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	158.16		146.94	42.86		
Conflicting Volume (Veh)	450.00		811.73	340.31		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	450.00		811.73	340.31		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1121.12		351.29	704.40		
Capacity	1121.12		296.76	704.40		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	158.16	155.10	146.94	42.86	230.61	219.39
cmx, Capacity	1121.12		296.76	704.40		
V / C	0.14		0.50	0.06		
d, Delay	8.74		28.46	10.44		
LOS	A		D	B		
dA, Approach Delay	4.41		24.39		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.36				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	313.27	146.94	42.86	450.00
Flared Storage Size				
cmx, Capacity	1121.12			
V / C	0.28			
Q95, 95% Queue Length	1.15			
d, Delay	8.74			
LOS	A			
dA, Approach Delay	4.41	24.39		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.43	
Worst Case Delay	16.19	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	290.00	30.00	9.00	346.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	325.84	33.71	10.11	388.76

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			10.11	
Conflicting Volume (Veh)	751.69	342.70			359.55	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	751.69	342.70			359.55	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	381.02	704.53			1210.27	
Capacity	376.89	704.53			1210.27	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	325.84	33.71	10.11	388.76
cmx, Capacity	376.89	704.53			1210.27	
V / C	0.13	0.04			0.01	
d, Delay	16.19	11.75			8.00	
LOS	C	B			A	
dA, Approach Delay	14.73		0.00		0.20	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	359.55	398.88
Flared Storage Size			
cmx, Capacity	444.81		1210.27
V / C	0.17		0.33
Q95, 95% Queue Length	0.60		1.45
d, Delay	14.73		8.00
LOS	B		A
dA, Approach Delay	14.73	0.00	0.20
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.78	
Average LOS		B	
V/C		0.65	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	138	135	173	0	287	17	0	85	127	114	446	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	36	47	0	77	5	0	23	34	31	120	1
Adjusted Volume	148	145	186	0	309	18	0	91	137	123	480	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	543	544	541	542	547	548	545	546
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	294	186	0	327	91	137	123	485
PLT, Proportion Left Turns	0.51	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	543	544	541	542	547	548	545	546
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.835	1.000	0.424	1.000	1.000	1.000	0.594	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.992	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1474	1485	764	1750	1782	1530	990	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	543	544	541	542	547	548	545	546
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	293.55	186.02	0	326.88	91.4	136.56	122.58	484.95
s, Saturation Flow Rate	1474	1485	764	1750	1782	1530	990	1762
c, Capacity	442	446	331	758	535	459	429	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.42	0	0.43	0.17	0.3	0.29	0.64
d1, Uniform Delay	9.18	8.40	4.82	5.92	7.75	8.07	5.50	6.65
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.66	2.86	0.00	1.79	0.69	1.65	1.67	4.01
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.83	11.27	4.82	7.71	8.44	9.72	7.16	10.65
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.67		7.71		9.21		9.95	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.78							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	543	544	541	542	547	548	545	546
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.14	1.24	0.00	1.90	0.56	0.87	0.66	3.16
Q2, Second-term Queued	0.57	0.21	0.00	0.33	0.07	0.13	0.12	0.75
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.24	0.44	0.34	0.31	0.29	0.44
Q, Average Back of Queue	2.71	1.45	0.00	2.23	0.63	1.00	0.78	3.91
fB%, % Factor	1.79	1.87	2.00	1.82	1.94	1.91	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.86	2.73	0.00	4.05	1.23	1.92	1.50	6.75

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	543	544	541	542	547	548	545	546
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.19	0.05	0.09	0.12	0.28
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	543	544	541	542	547	548	545	546
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	148.39		0.00				122.58	
PLT, Proportion LT in Lane	0.51		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.24		0.00				1.02	
Vo, Opposing Flow	91.40		484.95				326.88	
Volc, Adjusted Opposing F	0.80		4.04				2.72	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.27				0.00	
gu	9.00		10.73				13.00	
PL	0.51		1.00				1.00	
de facto caused by PL >=								
EL1	1.39		1.95				1.68	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.84		0.42				0.59	
fLT, Left Turn Adjustment	0.84	1.00	0.42	1.00	1.00	1.00	0.59	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	17.65
Average LOS	B
V/C	0.31
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	76	273	42	3	10	83	149	24	586	87	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	20	72	11	1	3	22	39	6	154	23	0
Adjusted Volume	14	80	287	44	3	11	87	157	25	617	92	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	552	553	554	549	550	551	558	555	557
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	94	216	72	24	20	14	269	617	92
PLT, Proportion Left Turns	0.15	0.00	0.00	1.00	1.00	0.00	0.32	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	0.77	0.09	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	552	553	554	549	550	551	558	555		557
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.951	1.000	1.000	0.950	0.736	1.000	0.895	0.950	0.790	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.885	0.987	1.000		1.000
flpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1711	1485	1485	1710	1326	1546	1575	1676	1394	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	552	553	554	549	550	551	558	555		557
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	93.68	215.53	71.84	24.32	19.89	13.68	269.47	335	282	91.58
								617		
s, Saturation Flow Rate	1711	1485	1485	1710	1326	1546	1575	1676	1394	1800
								1504		
c, Capacity	542	470	248	114	376	438	499	335	442	690
								777		
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
X, Volume / Capacity	0.17	0.46	0.29	0.21	0.05	0.03	0.54	1.00	0.64	0.13
								0.79		
d1, Uniform Delay	14.82	12.29	5.47	14.58	7.04	15.55	16.90	11.21		12.02
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		0.50
d2, Incremental Delay,	0.69	3.19	2.95	4.23	0.27	0.13	4.16	8.21		0.40
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
d, Delay	15.51	15.48	8.42	18.81	7.31	15.68	21.06	19.42		12.42
LOS	B	B	A	B	A	B	C	B		B
dA, Approach Delay	14.16			14.12			21.06	18.51		
Approach LOS	B			B			C	B		
dI, Intersection Delay	17.65									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.56	0.51	0.32	0.19	0.43	0.48	0.53	0.72	0.66
Q, Average Back of Queue	1.25	3.29	1.18	0.43	0.27	0.18	4.31	10.90	1.09
fB%, % Factor	1.89	1.76	1.89	1.96	1.97	1.98	1.71	1.56	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	2.35	5.79	2.24	0.85	0.52	0.36	7.38	16.96	2.08

Signal Timing Information

Approach	N			E			S	W		
Lane Group	552	553	554	549	550	551	558	555		557
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.05	0.15	0.05	0.01	0.02	0.01	0.17	0.20	0.20	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	552	553	554	549	550	551	558	555		557
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				44.21		87.37		616.84	
PLT, Proportion LT in Lane	0.15				1.00		0.32		1.00	
PLTo, Proportion LT in Opposing Flow	0.32				0.00		0.04		0.00	
LT Volume per Cycle	0.23				0.74		1.46		10.28	
Vo, Opposing Flow	269.47				91.58		93.68		13.68	
Volc, Adjusted Opposing Flow	4.49				1.53		1.64		0.23	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		1.39		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	5.37				0.00		0.00		0.00	
gu	10.47				17.00		17.61		19.00	
PL	0.15				1.00		0.32		1.00	
de facto caused by PL >= 0.15										
EL1	1.68				1.36		1.39		1.27	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.95				0.74		0.89		0.79	
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.95	0.74	1.00	0.89	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
			Control Type		Signalized							
			Method		HCM 2000							
			Average Delay		62.44							
			Average LOS		E							
			V/C		0.98							
			Loss Time		18							

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	131	247	21	356	322	69	35	236	417	32	297	40
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	34	64	5	92	83	18	9	61	107	8	77	10
Adjusted Volume	135	255	22	367	332	71	36	243	430	33	306	41

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	561	562	559	560	565	566	567	563	564
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	135	276	367	403	279	115	315	33	347
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.18	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	561	562	559	560	565	566	567	563	564
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1768

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	561	562	559	560	565	566	567	563	564
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	135.05	276.29	367.01	403.09	279.38	114.64	315.26	32.99	347.42
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1768
c, Capacity	282	282	373	713	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.48	0.98	0.99	0.57	0.84	0.34	1.1	0.58	0.88
d1, Uniform Delay	33.96	37.34	34.85	20.33	35.22	7.85	26.77	42.88	33.88
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	5.72	48.37	43.06	3.23	22.26	2.74	83.26	36.40	23.98
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.67	85.71	77.91	23.55	57.48	10.59	110.02	79.28	57.86
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	70.59		49.46		73.26			59.71	
Approach LOS	E		D		E			E	
dI, Intersection Delay	62.44								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	561	562	559	560	565	566	567	563	564
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.06	6.88	9.14	7.73	6.74	2.41	7.88	0.81	8.41
Q2, Second-term Queued	0.42	3.67	4.79	1.14	2.14	0.27	6.52	0.20	2.98
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.48	10.55	13.93	8.87	8.88	2.68	14.40	1.01	11.39
fB%, % Factor	1.75	1.56	1.53	1.58	1.58	1.79	1.53	1.91	1.55
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90
% Back of Queue	6.09	16.47	21.32	14.06	14.07	4.81	22.00	1.93	17.66

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	561	562	559	560	565	566	567	563	564
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	561	562	559	560	565	566	567	563	564
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	24.12	
		Average LOS	C	
		V/C	0.51	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	251	0	272	124	81	81
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	68	0	74	34	22	22
Adjusted Volume	0	0	0	273	0	296	135	88	88

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	574	573	576	577	575
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	273	296	135	176
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.50

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	574	573	576	577	575
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.640	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.933
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1118	1424	1530	1662

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	574	573	576	577	575
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	272.83	295.65	134.78	176.09
s, Saturation Flow Rate	1800	1118	1424	1530	1662
c, Capacity	1040	348	823	884	517
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.78	0.36	0.15	0.34
d1, Uniform Delay	8.02	28.25	10.12	8.80	23.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	16.11	1.22	0.37	1.79
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	44.35	11.34	9.16	25.67
LOS	A	D	B	A	C
dA, Approach Delay	8.02	44.35	10.66		25.67
Approach LOS	A	D	B		C
dI, Intersection Delay	24.12				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	574	573	576	577	575
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	6.21	3.94	1.56	3.39
Q2, Second-term Queued	0.00	1.68	0.55	0.19	0.37
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	7.89	4.49	1.75	3.76
fB%, % Factor	2.00	1.60	1.70	1.85	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	12.66	7.65	3.24	6.53

Signal Timing Information					
Approach	N	E	S		W
Lane Group	574	573	576	577	575
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.24	0.21	0.09	0.11
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	574	573	576	577	575
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	272.83	295.65		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.69	0.00	0.00		
LT Volume per Cycle	0.00	6.82	7.39		
Vo, Opposing Flow	0.00	176.09	0.00		
Volc, Adjusted Opposing F	0.00	4.40	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.72	0.00		
gu	5.00	26.28	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.47	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.64	0.80		
fLT, Left Turn Adjustment	1.00	0.64	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				8.45								
Average LOS				A								
V/C				0.58								
Loss Time				9								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	382	44	15	37	71	78	591	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	101	12	4	10	19	21	156	3
Adjusted Volume	75	33	42	56	402	46	16	39	75	82	622	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	580	581	578	579	584	585	582	583
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	448	55	75	82	636
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	580	581	578	579	584	585	582	583
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.368	1.000	0.894	1.000	0.519	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.985	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	650	1704	1610	1530	935	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	580	581	578	579	584	585	582	583
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	448.42	54.74	74.74	82.11	635.79
s, Saturation Flow Rate	1461	1530	650	1704	1610	1530	935	1759
c, Capacity	244	255	379	994	268	255	545	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.15	0.45	0.2	0.29	0.15	0.62
d1, Uniform Delay	13.49	12.85	3.42	4.24	12.94	13.14	3.43	4.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.82	1.48	1.71	2.90	0.58	2.81
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.24	5.72	14.65	16.04	4.01	7.71
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.56		15.45		7.28	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.45							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	580	581	578	579	584	585	582	583
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.54	0.47	0.65	0.38	4.15
Q2, Second-term Queued	0.17	0.05	0.05	0.49	0.06	0.10	0.07	0.98
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.39	0.61
Q, Average Back of Queue	1.14	0.41	0.31	3.02	0.53	0.75	0.44	5.13
fB%, % Factor	1.90	1.96	1.97	1.77	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.36	1.04	1.45	0.87	8.61

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	580	581	578	579	584	585	582	583
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	580	581	578	579	584	585	582	583
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		635.79		107.37		448.42	
Volc, Adjusted Opposing F	0.57		6.36		1.13		4.48	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.69		0.00		0.48	
gu	6.00		17.31		5.92		20.52	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.24		1.42		1.88	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.37		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.37	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.01								
Worst Case Delay				88.09								
Worst Case LOS				F								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	11.00	6.00	200.00	255.00	9.00	0.00	55.00	38.00	12.00	635.00	46.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	11.34	6.19	206.19	262.89	9.28	0.00	56.70	39.18	12.37	654.64	47.42

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	11.34	6.19	206.19			0.00	56.70	39.18	12.37		
Conflicting Volume (Veh)	1430.93	1406.70	267.53	702.06			1391.75	1387.63	678.35	272.16		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1430.93	1406.70	267.53	702.06			1391.75	1387.63	678.35	272.16		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	113.30	135.05	775.99	872.48			115.82	144.13	455.48	1302.81		
Capacity	46.10	95.48	775.99	872.48			81.19	101.90	455.48	1302.81		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjusted	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjusted	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	11.34	6.19	206.19	262.89	9.28	0.00	56.70	39.18	12.37	654.64	47.42
cmx, Capacity	46.10	95.48	775.99	872.48			81.19	101.90	455.48	1302.81		
V / C	0.02	0.12	0.01	0.24			0.00	0.56	0.09	0.01		
d, Delay	88.09	47.71	14.64	10.40			84.85	75.84	48.41	7.79		
LOS	F	E	B	B			F	F	E	A		
dA, Approach Delay	38.93			4.48			64.63			0.13		
Approach LOS	E						F					
dRank1, Rank 1 Delay				2.93						0.13		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	18.56	478.35	95.88	714.43
Flared Storage Size				
cmx, Capacity	124.46	872.48	149.24	1302.81
V / C	0.15	0.55	0.64	0.55
Q95, 95% Queue Length	0.51	3.41	3.53	3.48
d, Delay	38.93	10.40	64.63	7.79
LOS	E	B	F	A
dA, Approach Delay	38.93	4.48	64.63	0.13
Approach LOS	E		F	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.7								
Worst Case Delay				31.7								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	11.00	478.00	9.00	11.00	0.00	0.00	10.00	598.00	13.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	12.09	525.27	9.89	12.09	0.00	0.00	10.99	657.14	14.29

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	12.09			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1233.52	1247.80	530.22	671.43			1240.11	1245.60	664.29	535.16		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1233.52	1247.80	530.22	671.43			1240.11	1245.60	664.29	535.16		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	155.02	174.83	552.69	900.50			153.41	175.36	456.93	993.43		
Capacity	152.14	170.57	552.69	900.50			146.88	171.09	456.93	993.43		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	12.09	525.27	9.89	12.09	0.00	0.00	10.99	657.14	14.29
cmx, Capacity	152.14	170.57	552.69	900.50			146.88	171.09	456.93	993.43		
V / C	0.03	0.02	0.01	0.01			0.08	0.00	0.00	0.01		
d, Delay	29.64	27.08	12.49	9.05			31.70	28.23	15.07	8.66		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	21.86			0.20			31.70			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	12.09	535.16	12.09	10.99	671.43
Flared Storage Size						
cmx, Capacity	226.73			146.88		
V / C	0.06			0.08		
Q95, 95% Queue Length	0.18			0.26		
d, Delay	21.86			31.70		
LOS	C			D		
dA, Approach Delay	21.86	0.20		31.70	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.55	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	95.00	0.00	36.00	213.00	36.00	17.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	113.10	0.00	42.86	253.57	42.86	20.24
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	296.43	20.24
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	0.00	42.86	42.86	20.24
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.00	1.00	0.14	1.00
PHV, Proportion HV	3.00	0.00	4.77	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.05	-0.60	-0.01	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	296.43	20.24
hd initial	3.20	3.20	3.20	3.20
x initial	0.10	0.04	0.26	0.02
hd, iteration 1	4.21	3.50	4.05	3.81
Difference, iteration 1	1.01	0.30	0.85	0.61
hd, iteration 2	4.27	3.56	4.09	3.95
Difference, iteration 2	0.07	0.06	0.03	0.14
hd, iteration 3	4.28	3.56	4.09	3.95
Difference, iteration 3	0.00	0.00	0.00	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.28	3.56	4.09	3.95
x final, Degree of Utilization	0.13	0.04	0.34	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	113.10	42.86	296.43	20.24
hd, Departure Headway	4.28	3.56	4.09	3.95
x, Degree of Utilization	0.13	0.04	0.34	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.28	1.56	2.09	1.95
Capacity	841.37	1010.74	880.02	910.50
Delay	7.94	6.72	9.15	7.04
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.94	6.72	9.15	7.04
Approach LOS	A	A	A	A
Intersection Delay	8.55			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.23	
Worst Case Delay	10.27	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			56.16		223.97	50.00
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			56.16		223.97	50.00
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1561.46		768.66	1024.01
Capacity			1561.46		734.83	1024.01

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1561.46		734.83	1024.01
V / C			0.04		0.00	0.09
d, Delay			7.41		10.27	8.89
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.93	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.33			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	56.16	106.85	95.89
Flared Storage Size			
cmx, Capacity		1561.46	1012.63
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.41	8.93
LOS		A	A
dA, Approach Delay	0.00	4.65	8.93
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.13	
Worst Case Delay	18.22	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	10.00	451.00	0.00	3.00	413.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	11.11	501.11	0.00	3.33	458.89	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	11.11		0.00	3.33		
Conflicting Volume (Veh)	465.56		985.56	462.22		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	465.56		985.56	462.22		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1045.34		277.26	603.71		
Capacity	1045.34		273.08	603.71		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	11.11	501.11	0.00	3.33	458.89	6.67
cmx, Capacity	1045.34		273.08	603.71		
V / C	0.01		0.00	0.01		
d, Delay	8.48		18.22	11.00		
LOS	A		C	B		
dA, Approach Delay	0.18		11.00		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.13				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	512.22	3.33	465.56
Flared Storage Size			
cmx, Capacity	1045.34	603.71	
V / C	0.49	0.01	
Q95, 95% Queue Length	2.77	0.02	
d, Delay	8.48	11.00	
LOS	A	B	
dA, Approach Delay	0.18	11.00	0.00
Approach LOS		B	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.24	
Worst Case Delay	18.27	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	8.00	442.00	3.00	8.00	413.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	8.99	496.63	3.37	8.99	464.04	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	8.99		3.37	8.99		
Conflicting Volume (Veh)	468.54		980.90	466.29		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	468.54		980.90	466.29		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1103.64		279.03	600.54		
Capacity	1103.64		275.82	600.54		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	8.99	496.63	3.37	8.99	464.04	4.49
cmx, Capacity	1103.64		275.82	600.54		
V / C	0.01		0.01	0.01		
d, Delay	8.29		18.27	11.22		
LOS	A		C	B		
dA, Approach Delay	0.15		13.14		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.10				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	505.62	12.36	468.54
Flared Storage Size			
cmx, Capacity	1103.64	454.58	
V / C	0.46	0.03	
Q95, 95% Queue Length	2.46	0.08	
d, Delay	8.29	13.14	
LOS	A	B	
dA, Approach Delay	0.15	13.14	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.48	
Worst Case Delay	9.34	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	54.00	15.00	10.00	46.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	61.36	17.05	11.36	52.27

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			11.36	
Conflicting Volume (Veh)	144.89	69.89			78.41	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	144.89	69.89			78.41	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	852.31	944.83			1482.71	
Capacity	845.57	944.83			1482.71	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	61.36	17.05	11.36	52.27
cmx, Capacity	845.57	944.83			1482.71	
V / C	0.02	0.00			0.01	
d, Delay	9.34	8.89			7.45	
LOS	A	A			A	
dA, Approach Delay	9.34		0.00		1.33	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	78.41	63.64
Flared Storage Size			
cmx, Capacity	845.57		1482.71
V / C	0.02		0.04
Q95, 95% Queue Length	0.06		0.13
d, Delay	9.34		7.45
LOS	A		A
dA, Approach Delay	9.34	0.00	1.33
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.82	
Worst Case Delay	12.78	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	164.00	69.00	78.00	116.00	3.00	78.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	174.47	73.40	82.98	123.40	3.19	82.98

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			82.98		3.19	82.98
Conflicting Volume (Veh)			247.87		500.53	211.17
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			247.87		500.53	211.17
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1312.07		533.55	821.48
Capacity			1312.07		497.17	821.48

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	174.47	73.40	82.98	123.40	3.19	82.98
cmx, Capacity			1312.07		497.17	821.48
V / C			0.06		0.01	0.10
d, Delay			7.93		12.78	9.92
LOS			A		B	A
dA, Approach Delay	0.00		3.19		10.03	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.54			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	247.87	206.38	86.17
Flared Storage Size			
cmx, Capacity		1312.07	802.10
V / C		0.16	0.11
Q95, 95% Queue Length		0.56	0.36
d, Delay		7.93	10.03
LOS		A	B
dA, Approach Delay	0.00	3.19	10.03
Approach LOS			B

Scenario 18

Monroe St Alignment with Monroe St Gap Open

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	77.69
Average LOS	E
V/C	1
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	95	382	2	91	253	65	126	512	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	99	1	24	66	17	33	133	25
Adjusted Volume	41	269	82	99	398	2	95	264	68	131	533	100

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	594	595	592	593	598	599	596	597
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	99	400	95	331	131	633
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.01	0.00	0.20	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	594	595	592	593	598	599	596	597
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	0.999	1.000	0.969	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1763	1644	1728	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	594	595	592	593	598	599	596	597
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	98.96	400	94.79	331.25	131.25	633.33
s, Saturation Flow Rate	1710	1720	1644	1763	1644	1728	1676	1706
c, Capacity	46	470	91	504	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.09	0.79	0.81	0.6	1.1	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.48	25.62	16.12	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	102.36	10.38	119.93	12.17	42.91	4.85	110.39	119.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	146.38	30.65	68.53	20.97	136.39	139.22
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		53.60		31.55		138.74	
Approach LOS	D		D		C		F	
dI, Intersection Delay	77.69							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	594	595	592	593	598	599	596	597
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.54	5.75	1.45	4.35	2.04	9.85
Q2, Second-term Queued	0.44	1.31	1.96	1.72	0.63	0.80	2.61	17.18
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.50	7.47	2.08	5.14	4.65	27.03
fB%, % Factor	1.90	1.64	1.75	1.61	1.83	1.68	1.70	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.12	12.05	3.81	8.64	7.89	40.60

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	594	595	592	593	598	599	596	597
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.19	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	594	595	592	593	598	599	596	597
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdiff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.86	
Average LOS	A	
V/C	0.7	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1796	40	1644	13	92
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	483	11	442	3	25
Adjusted Volume	1931	43	1768	14	99

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	604	603	600	602	606
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1931	43	1768	14	99
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	604	603	600	602	606
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	604	603	600	602	606
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1931.18	43.01	1767.74	13.98	98.92
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.73	0.24	0.66	0.01	0.54
d1, Uniform Delay	5.72	48.15	5.12	2.42	49.99
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.76	3.05	1.33	0.02	11.23
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.48	51.19	6.45	2.44	61.23
LOS	A	D	A	A	E
dA, Approach Delay	7.48	51.19	6.41		61.23
Approach LOS	A	D	A		E
dI, Intersection Delay	8.86				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	604	603	600	602	606
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.11	1.30	13.21	0.09	3.11
Q2, Second-term Queued	4.29	0.13	3.31	0.02	0.48
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	20.40	1.43	16.51	0.11	3.59
fB%, % Factor	1.51	1.88	1.52	1.99	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	30.77	2.69	25.07	0.22	6.27

Signal Timing Information					
Approach	N	E	S		W
Lane Group	604	603	600	602	606
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.58	0.03	0.53	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	604	603	600	602	606
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.42								
Average LOS				D								
V/C				0.84								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	98	1664	154	92	206	143	206	1483	103	25	127	25
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	26	443	41	24	55	38	55	394	27	7	34	7
Adjusted Volume	104	1770	164	98	219	152	219	1578	110	27	135	27

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	616	617	619	611	612	614	615	607	608	610	620	621	623
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	104	1770	164	98	219	35	117	219	1578	110	27	135	27
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	616	617	619	611	612	614	615	607	608	610	620	621	623
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.692	1.000	1.000	1.000	0.950	1.000	1.000	0.554	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	997	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	616	617	619	611	612	614	615	607	608	610	620	621	623
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	104.26	1770.21	163.83	97.87	219.15	35.5	116.63	219.15	1577.66	109.57	26.6	135.11	26.6
s, Saturation Flow Rate	1676	3360	1515	1221	3427	1515	1515	1676	3327	1500	997	3427	1530
c, Capacity	335	1988	896	224	628	303	278	182	1664	750	183	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.31	0.89	0.18	0.44	0.35	0.12	0.42	1.21	0.95	0.15	0.15	0.22	0.09
d1, Uniform Delay	40.95	21.14	11.22	43.50	42.75	9.17	33.24	53.50	28.52	16.18	41.11	41.66	40.72
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.40	6.50	0.45	6.10	1.53	0.79	4.61	133.35	12.80	0.41	1.67	0.78	0.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	43.35	27.65	11.67	49.60	44.28	9.96	37.85	186.85	41.33	16.59	42.78	42.44	41.40
LOS	D	C	B	D	D	A	D	F	D	B	D	D	D
dA, Approach Delay	27.16			41.19				56.63			42.34		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.42												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	616	617	619	611	612	614	615	607	608	610	620	621	623
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.96	26.75	2.50	2.90	3.35	0.97	3.44	7.30	26.26	1.97	0.74	2.01	0.74
Q2, Second-term Queued	0.29	7.63	0.29	0.37	0.34	0.08	0.40	6.48	8.99	0.19	0.07	0.18	0.06
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.49	0.64	0.61	0.57	0.42	1.27	1.14	0.43	0.64	0.57
Q, Average Back of Queue	3.25	34.38	2.79	3.27	3.69	1.05	3.84	13.79	35.25	2.17	0.82	2.19	0.80
fB%, % Factor	1.76	1.50	1.79	1.76	1.74	1.91	1.73	1.53	1.50	1.82	1.92	1.82	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	5.73	51.58	4.98	5.75	6.41	2.00	6.66	21.12	52.90	3.95	1.57	3.99	1.53

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	616	617	619	611	612	614	615	607	608	610	620	621	623
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.06	0.53	0.11	0.08	0.06	0.02	0.08	0.13	0.47	0.07	0.03	0.04	0.02
Critical Lane Group		Y		Y				Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	616	617	619	611	612	614	615	607	608	610	620	621	623
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				97.87							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.26							0.89		
Vo, Opposing Flow				135.11							219.15		
Volc, Adjusted Opposing F				2.48							4.02		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.23							3.04		
gu				21.77							18.96		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.43							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.69							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.69	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		51.46	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	272	1643	22	84	236	127	55	1605	42	7	298	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	71	428	6	22	61	33	14	418	11	2	78	15
Adjusted Volume	283	1711	23	88	246	132	57	1672	44	7	310	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	640	641	643	638	634	635	637	644
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283	1711	23	466	57	1672	44	376
PLT, Proportion Left Turns	1.00	0.00	0.00	0.19	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.28	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	640	641	643	638	634	635	637	644
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.695	0.950	1.000	1.000	0.946
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.957	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2173	1613	3360	1471	3045

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	640	641	643	638	634	635	637	644
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	283.33	1711.46	22.92	465.63	57.29	1671.88	43.75	376.04
s, Saturation Flow Rate	1710	3327	1530	2173	1613	3360	1471	3045
c, Capacity	309	1897	872	480	149	1618	709	672
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.92	0.9	0.03	0.97	0.38	1.03	0.06	0.56
d1, Uniform Delay	48.26	22.84	11.26	46.36	51.23	31.10	16.61	41.56
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	33.65	7.49	0.06	34.38	7.32	31.36	0.17	3.34
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	81.91	30.34	11.32	80.74	58.56	62.46	16.78	44.90
LOS	F	C	B	F	E	E	B	D
dA, Approach Delay	37.36			80.74	61.20			44.90
Approach LOS	D			F	E			D
dI, Intersection Delay	51.46							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	640	641	643	638	634	635	637	644
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	9.27	26.53	0.33	8.08	1.80	29.27	0.78	5.85
Q2, Second-term Queued	3.32	7.83	0.03	3.60	0.23	13.58	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	12.59	34.36	0.37	11.68	2.02	42.85	0.85	6.67
fB%, % Factor	1.54	1.50	1.96	1.55	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	19.40	51.56	0.72	18.08	3.71	64.29	1.64	10.89

Signal Timing Information								
Approach	N			E	S			W
Lane Group	640	641	643	638	634	635	637	644
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian Time	0	0	0	0	0	0	0	0
L, Total Loss Time per Cycle	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Loss Time	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation Flow	0.17	0.51	0.01	0.21	0.04	0.50	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	640	641	643	638	634	635	637	644
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Multiple(M)				M				M
Opposed by Single(S) or Multiple(M)				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opposing Flow				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				87.50				7.29
PLT, Proportion LT in Lane				0.19				0.02
PLTo, Proportion LT in Opposing Flow				0.02				0.19
LT Volume per Cycle				2.92				0.24
Vo, Opposing Flow				376.04				465.63
Volc, Adjusted Opposing Flow				6.58				8.15
FLUo, Opposing Lane Utilization				0.95				0.95
Rpo, Opposing Platoon Ratio				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Ratio				0.78				0.78
gq, Opposing Queue Clearance				7.52				10.70
gu				18.98				11.26
PL				0.54				0.04
de facto caused by PL >= 0.5								
EL1				1.91				2.10
EL2				26.51				0.00
gdifff				0.00				0.00
fm				0.48				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.70	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.67
Worst Case Delay	12.24
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	422.00	56.00	391.00	158.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	463.74	61.54	429.67	173.63

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		61.54		
Conflicting Volume (Veh)		516.48		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		516.48		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		558.66		
Capacity		558.66		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Factor		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustment		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Time		3.30		
tf,hv, Heavy Vehicles Adjustment		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	463.74	61.54	429.67	173.63
cmx, Capacity		558.66		
V / C		0.11		
d, Delay		12.24		
LOS		B		
dA, Approach Delay	0.00	12.24	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	463.74	61.54	603.30
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.24	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	19.18	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	384	85	166	449
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	101	22	44	118
Adjusted Volume	89	118	404	89	175	473

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	661	660	662	664
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	494	175	473
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	661	660	662	664
Control Type	Split	No Left	Prot/Perm	No Left
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.339
fRT, Right Turn Adjustment	0.923	0.976	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1705	1693	604
				1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	661	660	662	664
Control Type	Split	No Left	Prot/Perm	No Left
			Prot	Perm
V, Volume	207.37	493.68	132	43
			175	
				472.63
s, Saturation Flow Rate	1627	1705	1693	604
			757	
				1748
c, Capacity	560	758	132	289
			420	
				971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	
				0.56
X, Volume / Capacity	0.37	0.65	1.00	0.15
			0.42	
				0.49
d1, Uniform Delay	22.16	19.55	11.34	
				12.18
k, Delay Calibration	0.50	0.50	0.50	
				0.50
d2, Incremental Delay	1.87	4.32	3.01	
				1.75
d3, Initial Queue Delay	0.00	0.00	0.00	
				0.00
Rp, Platoon Ratio	1.00	1.00	1.00	
				1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	
				0.56
PF, Progression Factor	1.00	1.00	1.00	
				1.00
d, Delay	24.04	23.87	14.35	
				13.93
LOS	C	C	B	
				B
dA, Approach Delay	24.04	23.87	14.04	
Approach LOS	C	C	B	
dI, Intersection Delay	19.18			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	661	660	662	664
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.65	2.52	7.20
Q2, Second-term Queued	0.44	1.67	0.44	1.04
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.62	1.12
Q, Average Back of Queue	4.34	11.33	2.96	8.24
fB%, % Factor	1.71	1.55	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	17.58	5.26	13.16

Signal Timing Information					
Approach	N	E	W		
Lane Group	661	660	662		664
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian Time	0	0	0		0
L, Total Loss Time per Cycle	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Loss Time	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.29	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	661	660	662	664	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				493.68	
Volc, Adjusted Opposing Flow				12.34	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				14.40	
gu				28.60	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.96	
EL2				0.00	
gdifff				0.00	
fm				0.34	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.34	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	1.98	
Worst Case Delay	11.82	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	51.00	106.00	317.00	34.00	59.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	56.04	116.48	348.35	37.36	64.84

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			116.48			64.84
Conflicting Volume (Veh)			367.03			460.99
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			367.03			460.99
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			678.28			592.29
Capacity			678.28			592.29

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	56.04	116.48	348.35	37.36	64.84
cmx, Capacity			678.28			592.29
V / C			0.17			0.11
d, Delay			11.40			11.82
LOS			B			B
dA, Approach Delay	0.00		11.40	0.00		11.82
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	489.01	116.48	385.71	64.84
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.40	0.00	11.82
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.36								
Worst Case Delay				12.27								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	23.00	119.00	16.00	23.00	81.00	15.00	13.00	35.00	48.00	7.00	17.00	21.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	25.00	129.35	17.39	25.00	88.04	16.30	14.13	38.04	52.17	7.61	18.48	22.83

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	25.00	129.35	17.39	25.00			14.13	38.04	52.17	7.61		
Conflicting Volume (Veh)	236.41	202.72	96.20	41.30			264.67	199.46	29.89	104.35		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	236.41	202.72	96.20	41.30			264.67	199.46	29.89	104.35		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	722.26	693.50	952.01	1580.96			683.98	698.17	1050.43	1499.83		
Capacity	646.26	678.28	952.01	1580.96			563.74	682.84	1050.43	1499.83		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	25.00	129.35	17.39	25.00	88.04	16.30	14.13	38.04	52.17	7.61	18.48	22.83
cmx, Capacity	646.26	678.28	952.01	1580.96			563.74	682.84	1050.43	1499.83		
V / C	0.04	0.19	0.02	0.02			0.03	0.06	0.05	0.01		
d, Delay	12.27	12.01	10.48	7.31			12.06	10.95	9.10	7.41		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	11.89			1.41			10.17			1.15		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.12						0.04		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	171.74	129.35	104.35	48.91
Flared Storage Size				
cmx, Capacity	693.47	1580.96	799.92	1499.83
V / C	0.25	0.08	0.13	0.03
Q95, 95% Queue Length	0.97	0.27	0.45	0.10
d, Delay	11.89	7.31	10.17	7.41
LOS	B	A	B	A
dA, Approach Delay	11.89	1.41	10.17	1.15
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.77								
Worst Case Delay				37.79								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	143.00	7.00	85.00	39.00	86.00	32.00	131.00	149.00	5.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	168.24	8.24	100.00	45.88	101.18	37.65	154.12	175.29	5.88	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			100.00	45.88	101.18	37.65			5.88	7.06	54.12
Conflicting Volume (Veh)	329.41			812.35	790.00	241.76	176.47			859.41	873.53	172.35
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	329.41			812.35	790.00	241.76	176.47			859.41	873.53	172.35
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1224.50			298.53	324.73	797.08	1411.90			278.61	290.48	866.07
Capacity	1224.50			242.37	275.98	797.08	1411.90			188.41	246.87	866.07

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjusted	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjusted	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	168.24	8.24	100.00	45.88	101.18	37.65	154.12	175.29	5.88	7.06	54.12
cmx, Capacity	1224.50			242.37	275.98	797.08	1411.90			188.41	246.87	866.07
V / C	0.12			0.41	0.17	0.13	0.03			0.03	0.03	0.06
d, Delay	8.34			37.79	35.98	10.17	7.62			25.02	20.50	10.07
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.81			26.14			0.78			12.48		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	176.47	145.88	101.18	367.06	67.06
Flared Storage Size						
cmx, Capacity			252.02		1411.90	548.31
V / C			0.58		0.26	0.12
Q95, 95% Queue Length			3.30		1.05	0.42
d, Delay			37.22		7.62	12.48
LOS			E		A	B
dA, Approach Delay	3.81		26.14		0.78	12.48
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.14	
Worst Case Delay	16.18	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	27.00	22.00	312.00	53.00	25.00	340.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	28.72	23.40	331.91	56.38	26.60	361.70

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	28.72	23.40			26.60	
Conflicting Volume (Veh)	775.00	360.11			388.30	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	775.00	360.11			388.30	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	364.94	688.90			1181.22	
Capacity	354.51	688.90			1181.22	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	28.72	23.40	331.91	56.38	26.60	361.70
cmx, Capacity	354.51	688.90			1181.22	
V / C	0.08	0.03			0.02	
d, Delay	16.18	11.26			8.12	
LOS	C	B			A	
dA, Approach Delay	13.97		0.00		0.56	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.23	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	52.13	388.30	388.30
Flared Storage Size			
cmx, Capacity	453.29		1181.22
V / C	0.11		0.33
Q95, 95% Queue Length	0.39		1.45
d, Delay	13.97		8.12
LOS	B		A
dA, Approach Delay	13.97	0.00	0.56
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.62	
Worst Case Delay	28.35	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	35.00	493.00	4.00	24.00	756.00	0.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	35.71	503.06	4.08	24.49	771.43	0.00

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	35.71		4.08	24.49		
Conflicting Volume (Veh)	771.43		1345.92	771.43		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	771.43		1345.92	771.43		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	838.97		168.53	396.63		
Capacity	838.97		161.35	396.63		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	35.71	503.06	4.08	24.49	771.43	0.00
cmx, Capacity	838.97		161.35	396.63		
V / C	0.04		0.03	0.06		
d, Delay	9.48		28.35	15.12		
LOS	A		D	C		
dA, Approach Delay	0.63		17.01		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	35.71	503.06	28.57	771.43
Flared Storage Size				
cmx, Capacity			328.25	
V / C			0.09	
Q95, 95% Queue Length			0.28	
d, Delay			17.01	
LOS			C	
dA, Approach Delay	0.63		17.01	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.3		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	2.00	49.00	2.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	2.13	52.13	2.13	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
Left Turn Flow Rate	22.34	4.26	2.13	8.51
Right Turn Flow Rate	7.45	8.51	2.13	14.89
PLT, Proportion LT	0.27	0.33	0.04	0.36
PRT, Proportion RT	0.09	0.67	0.04	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.00	3.82	4.01	3.84
Difference, iteration 1	0.80	0.62	0.81	0.64
hd, iteration 2	4.03	3.88	4.04	3.90
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.88	4.04	3.90
x final, Degree of Utilization	0.09	0.01	0.06	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	56.38	23.40
hd, Departure Headway	4.03	3.88	4.04	3.90
x, Degree of Utilization	0.09	0.01	0.06	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.88	2.04	1.90
Capacity	893.72	926.32	891.39	923.35
Delay	7.44	6.94	7.31	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.31	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.3			
Intersection LOS	A			

Node 14275: 37th & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	9.28	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	185.00	174.00	1.00	54.00	104.00	166.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	203.30	191.21	1.10	59.34	114.29	182.42
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	394.51	1.10	173.63	182.42
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	191.21	1.10	114.29	182.42
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.48	1.00	0.66	1.00
PHV, Proportion HV	3.45	0.00	1.66	1.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.23	-0.60	-0.37	-0.58

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	394.51	1.10	173.63	182.42
hd initial	3.20	3.20	3.20	3.20
x initial	0.35	0.00	0.15	0.16
hd, iteration 1	4.12	3.98	3.82	3.62
Difference, iteration 1	0.92	0.78	0.62	0.42
hd, iteration 2	4.19	4.18	3.91	3.67
Difference, iteration 2	0.07	0.20	0.08	0.06
hd, iteration 3	4.20	4.19	3.91	3.68
Difference, iteration 3	0.01	0.01	0.01	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.20	4.19	3.91	3.68
x final, Degree of Utilization	0.46	0.00	0.19	0.19

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	394.51	1.10	173.63	182.42
hd, Departure Headway	4.20	4.19	3.91	3.68
x, Degree of Utilization	0.46	0.00	0.19	0.19
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.20	2.19	1.91	1.68
Capacity	856.24	858.50	919.59	977.38
Delay	10.74	7.20	7.82	7.53
LOS	B	A	A	A
Q95, 95% Queue Length				
Approach Delay	10.74	7.20	7.82	7.53
Approach LOS	B	A	A	A
Intersection Delay	9.28			
Intersection LOS	A			

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.38	
Worst Case Delay	28.91	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	157.00	151.00	144.00	41.00	230.00	212.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	160.20	154.08	146.94	41.84	234.69	216.33

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	160.20		146.94	41.84		
Conflicting Volume (Veh)	451.02		817.35	342.86		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	451.02		817.35	342.86		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1120.15		348.63	702.08		
Capacity	1120.15		293.80	702.08		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	160.20	154.08	146.94	41.84	234.69	216.33
cmx, Capacity	1120.15		293.80	702.08		
V / C	0.14		0.50	0.06		
d, Delay	8.75		28.91	10.45		
LOS	A		D	B		
dA, Approach Delay	4.46		24.82		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.38				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	314.29	146.94	41.84	451.02
Flared Storage Size				
cmx, Capacity	1120.15			
V / C	0.28			
Q95, 95% Queue Length	1.16			
d, Delay	8.75			
LOS	A			
dA, Approach Delay	4.46	24.82		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.33	
Worst Case Delay	16.06	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	290.00	30.00	9.00	347.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	325.84	33.71	10.11	389.89

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	752.81	342.70			359.55	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	752.81	342.70			359.55	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	380.44	704.53			1210.27	
Capacity	376.31	704.53			1210.27	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	325.84	33.71	10.11	389.89
cmx, Capacity	376.31	704.53			1210.27	
V / C	0.12	0.04			0.01	
d, Delay	16.06	11.60			8.00	
LOS	C	B			A	
dA, Approach Delay	14.50		0.00		0.20	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	359.55	400.00
Flared Storage Size			
cmx, Capacity	449.43		1210.27
V / C	0.16		0.33
Q95, 95% Queue Length	0.55		1.46
d, Delay	14.50		8.00
LOS	B		A
dA, Approach Delay	14.50	0.00	0.20
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.77	
Average LOS		B	
V/C		0.65	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	137	135	174	0	287	17	0	85	125	114	447	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	36	47	0	77	5	0	23	34	31	120	1
Adjusted Volume	147	145	187	0	309	18	0	91	134	123	481	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	691	692	689	690	695	696	693	694
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	292	187	0	327	91	134	123	486
PLT, Proportion Left Turns	0.50	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.06	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	691	692	689	690	695	696	693	694
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.836	1.000	0.423	1.000	1.000	1.000	0.594	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.992	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1475	1485	762	1750	1782	1530	990	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	691	692	689	690	695	696	693	694
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	292.47	187.1	0	326.88	91.4	134.41	122.58	486.02
s, Saturation Flow Rate	1475	1485	762	1750	1782	1530	990	1762
c, Capacity	442	446	330	758	535	459	429	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.42	0	0.43	0.17	0.29	0.29	0.64
d1, Uniform Delay	9.17	8.41	4.82	5.92	7.75	8.06	5.50	6.65
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.56	2.89	0.00	1.79	0.69	1.62	1.67	4.03
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.73	11.30	4.82	7.71	8.44	9.67	7.16	10.68
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.61		7.71		9.17		9.97	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.77							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	691	692	689	690	695	696	693	694
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.13	1.25	0.00	1.90	0.56	0.86	0.66	3.17
Q2, Second-term Queued	0.57	0.22	0.00	0.33	0.07	0.13	0.12	0.75
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.24	0.44	0.34	0.31	0.29	0.44
Q, Average Back of Queue	2.69	1.46	0.00	2.23	0.63	0.99	0.78	3.92
fB%, % Factor	1.79	1.87	2.00	1.82	1.94	1.91	1.93	1.73
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.83	2.74	0.00	4.05	1.23	1.88	1.50	6.78

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	691	692	689	690	695	696	693	694
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.19	0.05	0.09	0.12	0.28
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	691	692	689	690	695	696	693	694
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	147.31		0.00				122.58	
PLT, Proportion LT in Lane	0.50		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.23		0.00				1.02	
Vo, Opposing Flow	91.40		486.02				326.88	
Volc, Adjusted Opposing F	0.80		4.05				2.72	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.29				0.00	
gu	9.00		10.71				13.00	
PL	0.50		1.00				1.00	
de facto caused by PL >=								
EL1	1.39		1.95				1.68	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.84		0.42				0.59	
fLT, Left Turn Adjustment	0.84	1.00	0.42	1.00	1.00	1.00	0.59	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	17.61
Average LOS	B
V/C	0.31
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	77	272	42	3	10	84	147	24	585	85	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	20	72	11	1	3	22	39	6	154	22	0
Adjusted Volume	14	81	286	44	3	11	88	155	25	616	89	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	700	701	702	697	698	699	706	703	705
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	95	215	72	24	20	14	268	616	89
PLT, Proportion Left Turns	0.14	0.00	0.00	1.00	1.00	0.00	0.33	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	0.77	0.09	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	700	701	702	697	698	699	706	703		705
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.951	1.000	1.000	0.950	0.738	1.000	0.893	0.950	0.790	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.885	0.987	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1712	1485	1485	1710	1328	1546	1571	1676	1394	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	700	701	702	697	698	699	706	703	705	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	94.74	214.74	71.58	24.32	19.89	13.68	268.42	335	280	89.47
s, Saturation Flow Rate	1712	1485	1485	1710	1328	1546	1571	616		1800
								1676	1394	
c, Capacity	542	470	248	114	376	438	497	1504		690
								335	442	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	777		0.38
								0.20	0.32	
X, Volume / Capacity	0.17	0.46	0.29	0.21	0.05	0.03	0.54	0.52		0.13
								1.00	0.64	
d1, Uniform Delay	14.83	12.28	5.47	14.58	7.04	15.55	16.90	0.79		12.01
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	11.20		12.01
d2, Incremental Delay,	0.70	3.17	2.93	4.23	0.27	0.13	4.16	0.50		0.50
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.15		0.39
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		0.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		1.00
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		0.38
d, Delay	15.53	15.45	8.40	18.81	7.31	15.68	21.05	1.00		1.00
LOS	B	B	A	B	A	B	C	19.35		12.39
dA, Approach Delay	14.15			14.12			21.05	B		B
Approach LOS	B			B			C	18.46		B
dI, Intersection Delay	17.61									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.56	0.51	0.32	0.19	0.43	0.48	0.53	0.72	0.66
Q, Average Back of Queue	1.26	3.28	1.18	0.43	0.27	0.18	4.29	10.86	1.07
fB%, % Factor	1.89	1.76	1.90	1.96	1.97	1.98	1.71	1.56	1.90
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	2.38	5.77	2.23	0.85	0.52	0.36	7.35	16.90	2.03

Signal Timing Information

Approach	N			E			S	W		
Lane Group	700	701	702	697	698	699	706	703		705
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.06	0.14	0.05	0.01	0.01	0.01	0.17	0.20	0.20	0.05
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	700	701	702	697	698	699	706	703		705
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				44.21		88.42		615.79	
PLT, Proportion LT in Lane	0.14				1.00		0.33		1.00	
PLTo, Proportion LT in Opposing Flow	0.33				0.00		0.04		0.00	
LT Volume per Cycle	0.23				0.74		1.47		10.26	
Vo, Opposing Flow	268.42				89.47		94.74		13.68	
Volc, Adjusted Opposing Flow	4.47				1.49		1.66		0.23	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		1.34		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	5.34				0.00		0.00		0.00	
gu	10.47				17.00		17.66		19.00	
PL	0.14				1.00		0.33		1.00	
de facto caused by PL >= 0.14										
EL1	1.67				1.36		1.40		1.27	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.95				0.74		0.89		0.79	
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.95	0.74	1.00	0.89	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.97								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	134	254	21	358	325	68	36	236	416	41	309	31
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	84	18	9	61	107	11	80	8
Adjusted Volume	138	262	22	369	335	70	37	243	429	42	319	32

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	709	710	707	708	713	714	715	711	712
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138	284	369	405	280	114	315	42	351
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.09

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	709	710	707	708	713	714	715	711	712
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.989	1.000	0.974	1.000	0.850	0.850	1.000	0.986
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1775

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	709	710	707	708	713	714	715	711	712
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	138.14	283.51	369.07	405.15	280.41	114.36	314.5	42.27	350.52
s, Saturation Flow Rate	1693	1695	1676	1736	1753	1515	1515	1710	1775
c, Capacity	282	282	373	714	331	337	286	57	395
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.49	1	0.99	0.57	0.85	0.34	1.1	0.74	0.89
d1, Uniform Delay	34.03	37.50	34.91	20.36	35.24	7.85	26.77	43.12	33.92
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.96	54.51	44.36	3.26	22.62	2.73	82.38	59.83	24.44
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.99	92.01	79.26	23.61	57.87	10.58	109.14	102.94	58.36
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	74.96		50.14		72.98			63.15	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.97								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	709	710	707	708	713	714	715	711	712
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.13	7.09	9.20	7.78	6.77	2.41	7.86	1.05	8.49
Q2, Second-term Queued	0.44	4.15	4.93	1.15	2.17	0.27	6.45	0.37	3.05
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.57	11.24	14.13	8.93	8.94	2.68	14.31	1.42	11.54
fB%, % Factor	1.74	1.55	1.53	1.58	1.58	1.79	1.53	1.88	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.24	17.46	21.61	14.14	14.16	4.80	21.87	2.66	17.89

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	709	710	707	708	713	714	715	711	712
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.17	0.22	0.23	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	709	710	707	708	713	714	715	711	712
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	24.29	
		Average LOS	C	
		V/C	0.51	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	254	0	270	125	81	79
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	69	0	73	34	22	21
Adjusted Volume	0	0	0	276	0	293	136	88	86

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	722	721	724	725	723
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	276	293	136	174
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.49

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	722	721	724	725	723
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.644	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.933
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1125	1424	1530	1663

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	722	721	724	725	723
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	276.09	293.48	135.87	173.91
s, Saturation Flow Rate	1800	1125	1424	1530	1663
c, Capacity	1040	350	823	884	517
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.79	0.36	0.15	0.34
d1, Uniform Delay	8.02	28.30	10.10	8.80	23.85
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	16.41	1.21	0.37	1.75
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	44.71	11.31	9.17	25.60
LOS	A	D	B	A	C
dA, Approach Delay	8.02	44.71	10.63		25.60
Approach LOS	A	D	B		C
dI, Intersection Delay	24.29				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	722	721	724	725	723
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	6.30	3.90	1.57	3.34
Q2, Second-term Queued	0.00	1.73	0.55	0.19	0.36
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	8.03	4.45	1.76	3.71
fB%, % Factor	2.00	1.60	1.71	1.85	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	12.85	7.59	3.27	6.44

Signal Timing Information					
Approach	N	E	S		W
Lane Group	722	721	724	725	723
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.25	0.21	0.09	0.10
Critical Lane Group		Y	Y		

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	722	721	724	725	723
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	276.09	293.48		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.68	0.00	0.00		
LT Volume per Cycle	0.00	6.90	7.34		
Vo, Opposing Flow	0.00	173.91	0.00		
Volc, Adjusted Opposing F	0.00	4.35	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.63	0.00		
gu	5.00	26.37	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.46	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.64	0.80		
fLT, Left Turn Adjustment	1.00	0.64	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.44	
Average LOS		A	
V/C		0.58	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	382	44	15	37	71	78	587	14
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	101	12	4	10	19	21	154	4
Adjusted Volume	75	33	42	56	402	46	16	39	75	82	618	15

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	728	729	726	727	732	733	730	731
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	448	55	75	82	633
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	728	729	726	727	732	733	730	731
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.371	1.000	0.894	1.000	0.519	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.985	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	654	1704	1610	1530	935	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	728	729	726	727	732	733	730	731
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	448.42	54.74	74.74	82.11	632.63
s, Saturation Flow Rate	1461	1530	654	1704	1610	1530	935	1759
c, Capacity	244	255	382	994	268	255	545	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.15	0.45	0.2	0.29	0.15	0.62
d1, Uniform Delay	13.49	12.85	3.42	4.24	12.94	13.14	3.43	4.88
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	5.70	1.39	0.81	1.48	1.71	2.90	0.58	2.78
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.22	5.72	14.65	16.04	4.01	7.66
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.55		15.45		7.24	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.44							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	728	729	726	727	732	733	730	731
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.54	0.47	0.65	0.38	4.12
Q2, Second-term Queued	0.17	0.05	0.05	0.49	0.06	0.10	0.07	0.97
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.39	0.61
Q, Average Back of Queue	1.14	0.41	0.31	3.02	0.53	0.75	0.44	5.08
fB%, % Factor	1.90	1.96	1.97	1.77	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.36	1.04	1.45	0.87	8.54

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	728	729	726	727	732	733	730	731
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	728	729	726	727	732	733	730	731
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		632.63		107.37		448.42	
Volc, Adjusted Opposing F	0.57		6.33		1.13		4.48	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.63		0.00		0.48	
gu	6.00		17.37		5.92		20.52	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.23		1.42		1.88	
EL2	0.00		0.00		0.00		0.00	
gdif	0.00		0.00		0.00		0.00	
fm	0.81		0.37		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.37	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.16								
Worst Case Delay				90.13								
Worst Case LOS				F								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	11.00	6.00	204.00	254.00	9.00	0.00	55.00	38.00	12.00	633.00	46.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	11.34	6.19	210.31	261.86	9.28	0.00	56.70	39.18	12.37	652.58	47.42

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	11.34	6.19	210.31			0.00	56.70	39.18	12.37		
Conflicting Volume (Veh)	1436.08	1411.86	266.49	700.00			1396.91	1392.78	676.29	271.13		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1436.08	1411.86	266.49	700.00			1396.91	1392.78	676.29	271.13		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	112.37	134.07	777.02	874.04			114.86	143.10	456.71	1303.94		
Capacity	45.02	94.15	777.02	874.04			80.02	100.49	456.71	1303.94		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	11.34	6.19	210.31	261.86	9.28	0.00	56.70	39.18	12.37	652.58	47.42
cmx, Capacity	45.02	94.15	777.02	874.04			80.02	100.49	456.71	1303.94		
V / C	0.02	0.12	0.01	0.24			0.00	0.56	0.09	0.01		
d, Delay	90.13	48.40	14.80	10.42			86.75	77.58	49.64	7.79		
LOS	F	E	B	B			F	F	E	A		
dA, Approach Delay	39.52			4.55			66.17			0.14		
Approach LOS	E						F					
dRank1, Rank 1 Delay				2.98						0.13		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	18.56	481.44	95.88	712.37
Flared Storage Size				
cmx, Capacity	122.64	874.04	147.49	1303.94
V / C	0.15	0.55	0.65	0.55
Q95, 95% Queue Length	0.51	3.44	3.58	3.45
d, Delay	39.52	10.42	66.17	7.79
LOS	E	B	F	A
dA, Approach Delay	39.52	4.55	66.17	0.14
Approach LOS	E		F	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.82								
Worst Case Delay				34.56								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	24.00	479.00	9.00	11.00	0.00	0.00	10.00	614.00	18.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	26.37	526.37	9.89	12.09	0.00	0.00	10.99	674.73	19.78

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	26.37			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1280.77	1300.55	531.32	694.51			1290.11	1295.60	684.62	536.26		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1280.77	1300.55	531.32	694.51			1290.11	1295.60	684.62	536.26		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	143.85	162.58	551.90	882.71			141.74	163.69	444.85	992.49		
Capacity	139.39	155.98	551.90	882.71			133.79	157.04	444.85	992.49		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	26.37	526.37	9.89	12.09	0.00	0.00	10.99	674.73	19.78
cmx, Capacity	139.39	155.98	551.90	882.71			133.79	157.04	444.85	992.49		
V / C	0.03	0.02	0.01	0.03			0.09	0.00	0.00	0.01		
d, Delay	31.97	29.22	12.66	9.20			34.56	30.58	15.75	8.67		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	23.24			0.43			34.56			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	26.37	536.26	12.09	10.99	694.51
Flared Storage Size						
cmx, Capacity	210.56			133.79		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.20			0.29		
d, Delay	23.24			34.56		
LOS	C			D		
dA, Approach Delay	23.24	0.43		34.56	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe		
Control Type	AWSC	
Method	HCM 2000	
Average Delay	8.58	
Average LOS	A	

Volume and Adjustments						
Approach	N		E	S		W
Movement	T	R1	R1	T	R1	R1
Base Volume	96.00	0.00	36.00	216.00	36.00	17.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	114.29	0.00	42.86	257.14	42.86	20.24
Geometry Group	1		1	1		1

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	114.29	42.86	300.00	20.24
Left Turn Flow Rate	0.00	0.00	0.00	0.00
Right Turn Flow Rate	0.00	42.86	42.86	20.24
PLT, Proportion LT	0.00	0.00	0.00	0.00
PRT, Proportion RT	0.00	1.00	0.14	1.00
PHV, Proportion HV	3.00	0.00	4.71	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.05	-0.60	-0.01	-0.60

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	114.29	42.86	300.00	20.24
hd initial	3.20	3.20	3.20	3.20
x initial	0.10	0.04	0.27	0.02
hd, iteration 1	4.21	3.50	4.05	3.82
Difference, iteration 1	1.01	0.30	0.85	0.62
hd, iteration 2	4.27	3.56	4.09	3.96
Difference, iteration 2	0.07	0.06	0.03	0.14
hd, iteration 3	4.28	3.56	4.09	3.96
Difference, iteration 3	0.00	0.00	0.00	0.01
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.28	3.56	4.09	3.96
x final, Degree of Utilization	0.14	0.04	0.34	0.02

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	114.29	42.86	300.00	20.24
hd, Departure Headway	4.28	3.56	4.09	3.96
x, Degree of Utilization	0.14	0.04	0.34	0.02
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.28	1.56	2.09	1.96
Capacity	840.85	1010.09	879.20	908.63
Delay	7.95	6.72	9.19	7.05
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.95	6.72	9.19	7.05
Approach LOS	A	A	A	A
Intersection Delay	8.58			
Intersection LOS	A			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.3	
Worst Case Delay	10.24	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	29.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	39.73	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			52.05		219.86	45.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			52.05		219.86	45.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1566.83		772.81	1029.36
Capacity			1566.83		738.91	1029.36

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	39.73	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1566.83		738.91	1029.36
V / C			0.04		0.00	0.09
d, Delay			7.40		10.24	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	52.05	106.85	95.89
Flared Storage Size			
cmx, Capacity		1566.83	1017.93
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.41	
Worst Case Delay	18.14	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	441.00	12.00	3.00	384.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	490.00	13.33	3.33	426.67	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		13.33	3.33		
Conflicting Volume (Veh)	433.33		946.67	430.00		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	433.33		946.67	430.00		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1074.96		292.39	629.44		
Capacity	1074.96		287.30	629.44		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	490.00	13.33	3.33	426.67	6.67
cmx, Capacity	1074.96		287.30	629.44		
V / C	0.01		0.05	0.01		
d, Delay	8.39		18.14	11.33		
LOS	A		C	B		
dA, Approach Delay	0.22		16.78		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.33	16.67	433.33
Flared Storage Size			
cmx, Capacity	1074.96	322.34	
V / C	0.47	0.05	
Q95, 95% Queue Length	2.55	0.16	
d, Delay	8.39	16.78	
LOS	A	C	
dA, Approach Delay	0.22	16.78	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.39	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	434.00	8.00	8.00	383.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	487.64	8.99	8.99	430.34	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	434.83		962.92	432.58		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	434.83		962.92	432.58		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1135.62		285.97	627.34		
Capacity	1135.62		278.43	627.34		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	487.64	8.99	8.99	430.34	4.49
cmx, Capacity	1135.62		278.43	627.34		
V / C	0.02		0.03	0.01		
d, Delay	8.23		18.39	11.19		
LOS	A		C	B		
dA, Approach Delay	0.35		14.79		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	508.99	17.98	434.83
Flared Storage Size			
cmx, Capacity	1135.62	385.69	
V / C	0.45	0.05	
Q95, 95% Queue Length	2.37	0.15	
d, Delay	8.23	14.79	
LOS	A	B	
dA, Approach Delay	0.35	14.79	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.73	
Worst Case Delay	9.24	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	47.00	15.00	11.00	35.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	53.41	17.05	12.50	39.77

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			12.50	
Conflicting Volume (Veh)	126.70	61.93			70.45	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	126.70	61.93			70.45	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	872.74	954.65			1492.75	
Capacity	865.25	954.65			1492.75	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	53.41	17.05	12.50	39.77
cmx, Capacity	865.25	954.65			1492.75	
V / C	0.02	0.00			0.01	
d, Delay	9.24	8.85			7.43	
LOS	A	A			A	
dA, Approach Delay	9.24		0.00		1.78	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	70.45	52.27
Flared Storage Size			
cmx, Capacity	865.25		1492.75
V / C	0.02		0.04
Q95, 95% Queue Length	0.06		0.11
d, Delay	9.24		7.43
LOS	A		A
dA, Approach Delay	9.24	0.00	1.78
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.59	
Worst Case Delay	12.5	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	193.00	6.00	70.00	125.00	2.00	63.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	205.32	6.38	74.47	132.98	2.13	67.02

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			74.47		2.13	67.02
Conflicting Volume (Veh)			211.70		490.43	208.51
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			211.70		490.43	208.51
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1352.80		540.78	824.30
Capacity			1352.80		508.48	824.30

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	205.32	6.38	74.47	132.98	2.13	67.02
cmx, Capacity			1352.80		508.48	824.30
V / C			0.06		0.00	0.08
d, Delay			7.82		12.50	9.78
LOS			A		B	A
dA, Approach Delay	0.00		2.81		9.87	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.47			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	211.70	207.45	69.15
Flared Storage Size			
cmx, Capacity		1352.80	808.84
V / C		0.15	0.09
Q95, 95% Queue Length		0.54	0.28
d, Delay		7.82	9.87
LOS		A	A
dA, Approach Delay	0.00	2.81	9.87
Approach LOS			A

Scenario 19

Refinement 1 with modified traffic calming west of 42nd Avenue +
Washington Street changes [*Washington St Alignment*]

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	78.59
Average LOS	E
V/C	1
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	96	385	0	89	256	67	129	513	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	100	0	23	67	17	34	134	25
Adjusted Volume	41	269	82	100	401	0	93	267	70	134	534	100

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	4582	4583	4580	4581	4586	4587	4584	4585
Lanes	L	RT	L	T	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	100	401	93	336	134	634
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.21	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	4582	4583	4580	4581	4586	4587	4584	4585
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.969	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1727	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	4582	4583	4580	4581	4586	4587	4584	4585
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	100	401.04	92.71	336.46	134.38	634.38
s, Saturation Flow Rate	1710	1720	1644	1765	1644	1727	1676	1706
c, Capacity	46	470	91	504	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.8	0.79	0.61	1.12	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.49	25.59	16.18	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	123.54	12.25	40.30	5.05	118.84	120.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	149.99	30.74	65.89	21.23	144.84	140.03
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		54.54		30.88		140.87	
Approach LOS	D		D		C		F	
dI, Intersection Delay	78.59							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	4582	4583	4580	4581	4586	4587	4584	4585
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.56	5.77	1.42	4.43	2.09	9.87
Q2, Second-term Queued	0.44	1.31	2.05	1.74	0.58	0.83	2.90	17.29
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.61	7.50	2.00	5.26	4.99	27.16
fB%, % Factor	1.90	1.64	1.74	1.61	1.84	1.67	1.68	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.29	12.09	3.67	8.81	8.41	40.80

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	4582	4583	4580	4581	4586	4587	4584	4585
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.19	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	4582	4583	4580	4581	4586	4587	4584	4585
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Re								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdiff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.1	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1823	40	1700	14	93
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	490	11	457	4	25
Adjusted Volume	1960	43	1828	15	100

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	4592	4591	4588	4590	4594
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1960	43	1828	15	100
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	4592	4591	4588	4590	4594
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	4592	4591	4588	4590	4594
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1960.22	43.01	1827.96	15.05	100
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.74	0.24	0.69	0.01	0.55
d1, Uniform Delay	5.84	48.15	5.33	2.42	50.03
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.86	3.05	1.47	0.02	11.48
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.70	51.19	6.79	2.44	61.51
LOS	A	D	A	A	E
dA, Approach Delay	7.70	51.19	6.76		61.51
Approach LOS	A	D	A		E
dI, Intersection Delay	9.1				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	4592	4591	4588	4590	4594
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.70	1.30	14.20	0.10	3.15
Q2, Second-term Queued	4.50	0.13	3.63	0.02	0.49
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	21.20	1.43	17.83	0.12	3.64
fB%, % Factor	1.51	1.88	1.51	1.99	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	31.95	2.69	27.00	0.24	6.34

Signal Timing Information					
Approach	N	E	S		W
Lane Group	4592	4591	4588	4590	4594
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.59	0.03	0.55	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	4592	4591	4588	4590	4594
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Z		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.69								
Average LOS				D								
V/C				0.87								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	108	1691	146	75	223	194	204	1482	87	24	135	22
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	29	450	39	20	59	52	54	394	23	6	36	6
Adjusted Volume	115	1799	155	80	237	206	217	1577	93	26	144	23

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	115	1799	155	80	237	48	158	217	1577	93	26	144	23
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.677	1.000	1.000	1.000	0.950	1.000	1.000	0.526	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1195	3427	1515	1515	1676	3327	1500	946	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	114.89	1798.94	155.32	79.79	237.23	48.16	158.23	217.02	1576.6	92.55	25.53	143.62	23.4
s, Saturation Flow Rate	1676	3360	1515	1195	3427	1515	1515	1676	3327	1500	946	3427	1530
c, Capacity	335	1988	896	219	628	303	278	182	1664	750	174	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.34	0.9	0.17	0.36	0.38	0.16	0.57	1.19	0.95	0.12	0.15	0.23	0.08
d1, Uniform Delay	41.23	21.53	11.15	42.88	42.99	9.25	34.26	53.50	28.51	15.99	41.13	41.77	40.64
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay	2.77	7.35	0.42	4.63	1.73	1.12	8.23	129.03	12.72	0.34	1.78	0.85	0.58
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	44.00	28.88	11.57	47.51	44.72	10.37	42.49	182.53	41.23	16.32	42.91	42.61	41.22
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	28.42			41.31				56.26			42.48		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.69												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.29	27.68	2.36	2.33	3.64	1.33	4.81	7.23	26.23	1.64	0.71	2.14	0.65
Q2, Second-term Queued	0.33	8.24	0.27	0.27	0.38	0.11	0.72	6.26	8.96	0.16	0.07	0.19	0.05
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.48	0.64	0.61	0.57	0.42	1.27	1.14	0.41	0.64	0.57
Q, Average Back of Queue	3.62	35.92	2.63	2.60	4.03	1.44	5.53	13.49	35.19	1.80	0.78	2.33	0.70
fB%, % Factor	1.74	1.50	1.80	1.80	1.72	1.87	1.67	1.53	1.50	1.85	1.93	1.81	1.93
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.31	53.89	4.72	4.67	6.94	2.70	9.21	20.69	52.80	3.34	1.51	4.23	1.35

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.54	0.10	0.07	0.07	0.03	0.10	0.13	0.47	0.06	0.03	0.04	0.02
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	4604	4605	4607	4599	4600	4602	4603	4595	4596	4598	4608	4609	4611
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				79.79							25.53		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				2.66							0.85		
Vo, Opposing Flow				143.62							237.23		
Volc, Adjusted Opposing F				2.64							4.35		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.50							3.67		
gu				21.50							18.33		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.44							1.58		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.68							0.53		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	1.00	1.00	1.00	0.95	1.00	1.00	0.53	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		54.29	
Average LOS		D	
V/C		0.99	
Loss Time		14	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	262	1653	22	100	234	79	56	1658	44	7	296	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	68	430	6	26	61	21	15	432	11	2	77	15
Adjusted Volume	273	1722	23	104	244	82	58	1727	46	7	308	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	4628	4629	4631	4626	4622	4623	4625	4632
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	273	1722	23	430	58	1727	46	374
PLT, Proportion Left Turns	1.00	0.00	0.00	0.24	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.19	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	4628	4629	4631	4626	4622	4623	4625	4632
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.676	0.950	1.000	1.000	0.947
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.971	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2143	1613	3360	1471	3046

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	4628	4629	4631	4626	4622	4623	4625	4632
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	272.92	1721.88	22.92	430.21	58.33	1727.08	45.83	373.96
s, Saturation Flow Rate	1710	3327	1530	2143	1613	3360	1471	3046
c, Capacity	309	1897	872	473	149	1618	709	673
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.88	0.91	0.03	0.91	0.39	1.07	0.06	0.56
d1, Uniform Delay	47.91	22.99	11.26	45.58	51.27	31.10	16.64	41.52
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.44	7.86	0.06	23.99	7.53	42.72	0.18	3.29
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.35	30.85	11.32	69.56	58.80	73.82	16.81	44.82
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.79			69.56	71.92			44.82
Approach LOS	D			E	E			D
dI, Intersection Delay	54.29							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	4628	4629	4631	4626	4622	4623	4625	4632
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	8.87	26.86	0.33	7.34	1.83	30.24	0.82	5.81
Q2, Second-term Queued	2.84	8.06	0.03	2.70	0.23	15.98	0.08	0.81
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	11.71	34.93	0.37	10.04	2.06	46.22	0.89	6.63
fB%, % Factor	1.55	1.50	1.96	1.57	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.12	52.41	0.72	15.73	3.78	69.33	1.71	10.82

Signal Timing Information								
Approach	N			E	S			W
Lane Group	4628	4629	4631	4626	4622	4623	4625	4632
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.20	0.04	0.51	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	4628	4629	4631	4626	4622	4623	4625	4632
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				104.17				7.29
PLT, Proportion LT in Lane				0.24				0.02
PLTo, Proportion LT in Op				0.02				0.24
LT Volume per Cycle				3.47				0.24
Vo, Opposing Flow				373.96				430.21
Volc, Adjusted Opposing F				6.55				7.53
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.45				9.42
gu				19.05				11.26
PL				0.69				0.04
de facto caused by PL >=								
EL1				1.91				2.02
EL2				26.30				0.00
gdif				0.00				0.00
fm				0.44				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.65
Worst Case Delay	12.3
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	429.00	55.00	390.00	173.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	471.43	60.44	428.57	190.11

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		60.44		
Conflicting Volume (Veh)		523.63		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		523.63		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		553.49		
Capacity		553.49		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	471.43	60.44	428.57	190.11
cmx, Capacity		553.49		
V / C		0.11		
d, Delay		12.30		
LOS		B		
dA, Approach Delay	0.00	12.30	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	471.43	60.44	618.68
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.30	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.99	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	375	85	166	453
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	99	22	44	119
Adjusted Volume	89	118	395	89	175	477

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	4649	4648	4650	4652
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	484	175	477
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	4649	4648	4650	4652
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.348
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1704	1693	1748

Capacity, Control Delay, and Level of Service Determination				
Approach	N	E	W	
Lane Group	4649	4648	4650	4652
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
V, Volume	207.37	484.21	132	43
			175	476.84
s, Saturation Flow Rate	1627	1704	1693	1748
			770	
c, Capacity	560	757	132	296
			428	971
g/C, Green / Cycle	0.34	0.44	0.08	0.48
			0.56	0.56
X, Volume / Capacity	0.37	0.64	1.00	0.15
			0.41	0.49
d1, Uniform Delay	22.16	19.40	11.24	12.22
k, Delay Calibration	0.50	0.50	0.50	0.50
d2, Incremental Delay	1.87	4.11	2.87	1.78
d3, Initial Queue Delay	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00
P, Proportion Arriving on Green	0.34	0.44	0.08	0.56
PF, Progression Factor	1.00	1.00	1.00	1.00
d, Delay	24.04	23.51	14.11	14.00
LOS	C	C	B	B
dA, Approach Delay	24.04	23.51	14.03	
Approach LOS	C	C	B	
dI, Intersection Delay	18.99			
Intersection LOS	B			

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	4649	4648	4650	4652
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.39	2.51	7.29
Q2, Second-term Queued	0.44	1.59	0.43	1.06
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	10.99	2.94	8.35
fB%, % Factor	1.71	1.56	1.78	1.59
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	17.09	5.23	13.31

Signal Timing Information					
Approach	N	E	W		
Lane Group	4649	4648	4650		4652
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	4649	4648	4650		4652
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				484.21	
Volc, Adjusted Opposing Flow				12.11	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.90	
gu				29.10	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.94	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.03	
Worst Case Delay	11.79	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	45.00	109.00	317.00	33.00	59.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	49.45	119.78	348.35	36.26	64.84

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			119.78			64.84
Conflicting Volume (Veh)			366.48			457.69
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			366.48			457.69
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			678.76			594.85
Capacity			678.76			594.85

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	49.45	119.78	348.35	36.26	64.84
cmx, Capacity			678.76			594.85
V / C			0.18			0.11
d, Delay			11.44			11.79
LOS			B			B
dA, Approach Delay	0.00		11.44	0.00		11.79
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	482.42	119.78	384.62	64.84
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.44	0.00	11.79
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				9.11								
Worst Case Delay				13.29								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	27.00	123.00	22.00	76.00	20.00	15.00	8.00	35.00	48.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	29.35	133.70	23.91	82.61	21.74	16.30	8.70	38.04	52.17	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	29.35	133.70	23.91	82.61			8.70	38.04	52.17	5.43		
Conflicting Volume (Veh)	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	275.54	238.59	29.89	32.61			309.24	238.59	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	680.92	662.48	1036.06	1592.47			639.32	664.22	1057.68	1585.26		
Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	29.35	133.70	23.91	82.61	21.74	16.30	8.70	38.04	52.17	5.43	16.30	16.30
cmx, Capacity	590.98	625.13	1036.06	1592.47			500.09	626.77	1057.68	1585.26		
V / C	0.05	0.21	0.02	0.05			0.02	0.06	0.05	0.00		
d, Delay	13.29	12.96	10.68	7.38			12.87	11.42	9.08	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.72			5.06			10.31			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.39						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	186.96	120.65	98.91	38.04
Flared Storage Size				
cmx, Capacity	652.31	1592.47	776.31	1585.26
V / C	0.29	0.08	0.13	0.02
Q95, 95% Queue Length	1.18	0.25	0.44	0.07
d, Delay	12.72	7.38	10.31	7.28
LOS	B	A	B	A
dA, Approach Delay	12.72	5.06	10.31	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
			Control Type		TWSC							
			Method		HCM 2000							
			dI, Average Delay		8.59							
			Worst Case Delay		37.22							
			Worst Case LOS		E							

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	147.00	7.00	84.00	37.00	88.00	32.00	130.00	149.00	6.00	6.00	45.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	172.94	8.24	98.82	43.53	103.53	37.65	152.94	175.29	7.06	7.06	52.94

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			98.82	43.53	103.53	37.65			7.06	7.06	52.94
Conflicting Volume (Veh)	328.24			815.29	793.53	240.59	181.18			862.94	877.06	177.06
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	328.24			815.29	793.53	240.59	181.18			862.94	877.06	177.06
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1225.72			297.17	323.21	798.29	1406.33			277.09	289.11	860.86
Capacity	1225.72			241.50	274.70	798.29	1406.33			188.05	245.72	860.86

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	172.94	8.24	98.82	43.53	103.53	37.65	152.94	175.29	7.06	7.06	52.94
cmx, Capacity	1225.72			241.50	274.70	798.29	1406.33			188.05	245.72	860.86
V / C	0.12			0.41	0.16	0.13	0.03			0.04	0.03	0.06
d, Delay	8.34			37.22	35.42	10.18	7.63			25.15	20.65	10.18
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.75			25.51			0.79			12.86		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	181.18	142.35	103.53	365.88	67.06
Flared Storage Size						
cmx, Capacity			250.77		1406.33	524.87
V / C			0.57		0.26	0.13
Q95, 95% Queue Length			3.19		1.05	0.44
d, Delay			36.67		7.63	12.86
LOS			E		A	B
dA, Approach Delay	3.75		25.51		0.79	12.86
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.23	
Worst Case Delay	16.26	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	31.00	23.00	317.00	53.00	24.00	333.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	32.98	24.47	337.23	56.38	25.53	354.26

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	32.98	24.47			25.53	
Conflicting Volume (Veh)	770.74	365.43			393.62	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	770.74	365.43			393.62	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	367.06	684.19			1175.92	
Capacity	356.99	684.19			1175.92	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	32.98	24.47	337.23	56.38	25.53	354.26
cmx, Capacity	356.99	684.19			1175.92	
V / C	0.09	0.04			0.02	
d, Delay	16.26	11.44			8.13	
LOS	C	B			A	
dA, Approach Delay	14.21		0.00		0.55	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.22	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	57.45	393.62	379.79
Flared Storage Size			
cmx, Capacity	448.31		1175.92
V / C	0.13		0.32
Q95, 95% Queue Length	0.44		1.41
d, Delay	14.21		8.13
LOS	B		A
dA, Approach Delay	14.21	0.00	0.55
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.64	
Worst Case Delay	28.41	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	35.00	487.00	5.00	24.00	759.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	35.71	496.94	5.10	24.49	774.49	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	35.71		5.10	24.49		
Conflicting Volume (Veh)	775.51		1343.37	775.00		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	775.51		1343.37	775.00		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	836.02		169.13	394.76		
Capacity	836.02		161.90	394.76		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	35.71	496.94	5.10	24.49	774.49	1.02
cmx, Capacity	836.02		161.90	394.76		
V / C	0.04		0.03	0.06		
d, Delay	9.50		28.41	15.29		
LOS	A		D	C		
dA, Approach Delay	0.64		17.55		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	35.71	496.94	29.59	775.51
Flared Storage Size				
cmx, Capacity			316.32	
V / C			0.09	
Q95, 95% Queue Length			0.31	
d, Delay			17.55	
LOS			C	
dA, Approach Delay	0.64		17.55	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.31		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	3.00	50.00	2.00	8.00	0.00	15.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	3.19	53.19	2.13	8.51	0.00	15.96
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
Left Turn Flow Rate	22.34	4.26	3.19	8.51
Right Turn Flow Rate	7.45	8.51	2.13	15.96
PLT, Proportion LT	0.27	0.33	0.05	0.35
PRT, Proportion RT	0.09	0.67	0.04	0.65
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.01	-0.32

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.01	3.83	4.01	3.83
Difference, iteration 1	0.81	0.63	0.81	0.63
hd, iteration 2	4.03	3.89	4.04	3.89
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.89	4.04	3.89
x final, Degree of Utilization	0.09	0.01	0.07	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
hd, Departure Headway	4.03	3.89	4.04	3.89
x, Degree of Utilization	0.09	0.01	0.07	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.89	2.04	1.89
Capacity	892.51	924.73	889.89	924.67
Delay	7.44	6.94	7.33	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.33	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.31			
Intersection LOS	A			

Node 14275: 37th & Monroe					
Control Type		AWSC			
Method		HCM 2000			
Average Delay		15.88			
Average LOS		C			

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	75.00	23.00	43.00	215.00	1.00	66.00	121.00	168.00	18.00	166.00	165.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	82.42	25.27	47.25	236.26	1.10	72.53	132.97	184.62	19.78	182.42	181.32
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	108.79	284.62	72.53	317.58	383.52
Left Turn Flow Rate	1.10	47.25	72.53	0.00	19.78
Right Turn Flow Rate	25.27	1.10	0.00	184.62	181.32
PLT, Proportion LT	0.01	0.17	1.00	0.00	0.05
PRT, Proportion RT	0.23	0.00	0.00	0.58	0.47
PHV, Proportion HV	2.68	2.82	1.00	1.58	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.09	0.08	0.52	-0.38	-0.26

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	108.79	284.62	72.53	317.58	383.52
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.10	0.25	0.06	0.28	0.34
hd, iteration 1	5.39	5.12	6.22	5.31	4.69
Difference, iteration 1	2.19	1.92	3.02	2.11	1.49
hd, iteration 2	6.30	5.86	6.86	5.94	5.40
Difference, iteration 2	0.91	0.74	0.64	0.63	0.71
hd, iteration 3	6.67	6.13	7.13	6.22	5.64
Difference, iteration 3	0.37	0.27	0.28	0.27	0.24
hd, iteration 4	6.81	6.24	7.23	6.32	5.74
Difference, iteration 4	0.14	0.11	0.10	0.10	0.10
hd, iteration 5	6.87	6.28	7.27	6.36	5.78
Difference, iteration 5	0.06	0.04	0.04	0.04	0.04
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.87	6.28	7.27	6.36	5.78
x final, Degree of Utilizatio	0.21	0.50	0.15	0.56	0.62

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	108.79	284.62	72.53	317.58	383.52
hd, Departure Headway	6.87	6.28	7.27	6.36	5.78
x, Degree of Utilization	0.21	0.50	0.15	0.56	0.62
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.87	4.28	4.97	4.06	3.78
Capacity	523.77	573.12	494.94	566.31	622.47
Delay	11.65	15.31	11.21	16.86	17.58
LOS	B	C	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.65	15.31	15.81		17.58
Approach LOS	B	C	C		C
Intersection Delay	15.88				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.74	
Worst Case Delay	29.31	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	158.00	148.00	137.00	137.00	257.00	202.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	161.22	151.02	139.80	139.80	262.24	206.12

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	161.22		139.80	139.80		
Conflicting Volume (Veh)	468.37		838.78	365.31		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	468.37		838.78	365.31		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1103.80		338.64	682.04		
Capacity	1103.80		284.36	682.04		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	161.22	151.02	139.80	139.80	262.24	206.12
cmx, Capacity	1103.80		284.36	682.04		
V / C	0.15		0.49	0.20		
d, Delay	8.82		29.31	11.63		
LOS	A		D	B		
dA, Approach Delay	4.55		20.47		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.41				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	312.24	139.80	139.80	468.37
Flared Storage Size				
cmx, Capacity	1103.80			
V / C	0.28			
Q95, 95% Queue Length	1.17			
d, Delay	8.82			
LOS	A			
dA, Approach Delay	4.55	20.47		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.34	
Worst Case Delay	15.9	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	292.00	32.00	9.00	335.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	328.09	35.96	10.11	376.40

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	742.70	346.07			364.04	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	742.70	346.07			364.04	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	385.67	701.48			1205.68	
Capacity	381.51	701.48			1205.68	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	328.09	35.96	10.11	376.40
cmx, Capacity	381.51	701.48			1205.68	
V / C	0.12	0.04			0.01	
d, Delay	15.90	11.59			8.01	
LOS	C	B			A	
dA, Approach Delay	14.39		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	364.04	386.52
Flared Storage Size			
cmx, Capacity	453.80		1205.68
V / C	0.16		0.32
Q95, 95% Queue Length	0.55		1.40
d, Delay	14.39		8.01
LOS	B		A
dA, Approach Delay	14.39	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.71	
Average LOS		B	
V/C		0.63	
Loss Time		8	

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	138	129	186	0	230	20	0	103	23	116	432	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	35	50	0	62	5	0	28	6	31	116	1
Adjusted Volume	148	139	200	0	247	22	0	111	25	125	465	5

Volume and Adjustments by Lane Group

Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	4679	4680	4677	4678	4683	4684	4681	4682
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	287	200	0	269	111	25	125	470
PLT, Proportion Left Turns	0.52	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.08	0.00	1.00	0.00	0.01

Saturation Flow Rate

Approach	N		E		S		W	
Lane Group	4679	4680	4677	4678	4683	4684	4681	4682
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.821	1.000	0.441	1.000	1.000	1.000	0.627	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.988	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1449	1485	793	1744	1782	1530	1045	1762

Capacity, Control Delay, and Level of Service Determination

Approach	N		E		S		W	
Lane Group	4679	4680	4677	4678	4683	4684	4681	4682
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	287.1	200	0	268.82	110.75	24.73	124.73	469.89
s, Saturation Flow Rate	1449	1485	793	1744	1782	1530	1045	1762
c, Capacity	435	446	344	756	535	459	453	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.45	0	0.36	0.21	0.05	0.28	0.62
d1, Uniform Delay	9.17	8.49	4.82	5.69	7.84	7.47	5.47	6.57
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.67	3.25	0.00	1.31	0.88	0.22	1.51	3.70
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.84	11.74	4.82	7.00	8.71	7.69	6.98	10.26
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.75		7.00		8.53		9.57	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.71							
Intersection LOS	B							

Back of Queue

Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	4679	4680	4677	4678	4683	4684	4681	4682
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.09	1.35	0.00	1.50	0.69	0.15	0.67	3.03
Q2, Second-term Queued	0.56	0.24	0.00	0.24	0.09	0.02	0.12	0.69
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.25	0.44	0.34	0.31	0.30	0.44
Q, Average Back of Queue	2.65	1.59	0.00	1.74	0.78	0.16	0.78	3.71
fB%, % Factor	1.79	1.86	2.00	1.85	1.93	1.98	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.75	2.97	0.00	3.22	1.50	0.33	1.51	6.46

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	4679	4680	4677	4678	4683	4684	4681	4682
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.13	0.00	0.15	0.06	0.02	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	4679	4680	4677	4678	4683	4684	4681	4682
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	148.39		0.00				124.73	
PLT, Proportion LT in Lane	0.52		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.24		0.00				1.04	
Vo, Opposing Flow	110.75		469.89				268.82	
Volc, Adjusted Opposing F	0.97		3.92				2.24	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.01				0.00	
gu	9.00		10.99				13.00	
PL	0.52		1.00				1.00	
de facto caused by PL >=								
EL1	1.42		1.92				1.60	
EL2	0.00		0.00				0.00	
gdiff	0.00		0.00				0.00	
fm	0.82		0.44				0.63	
fLT, Left Turn Adjustment	0.82	1.00	0.44	1.00	1.00	1.00	0.63	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	16.67
Average LOS	B
V/C	0.33
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	213	163	58	0	10	13	273	24	507	74	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	56	43	15	0	3	3	72	6	133	19	0
Adjusted Volume	14	224	172	61	0	11	14	287	25	534	78	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	4688	4689	4690	4685	4686	4687	4694	4691	4693
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	238	129	43	34	27	11	326	534	78
PLT, Proportion Left Turns	0.06	0.00	0.00	1.00	1.00	0.00	0.04	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	1.00	0.08	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	4688	4689	4690	4685	4686	4687	4694	4691		4693
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.976	1.000	1.000	0.950	0.746	1.000	0.986	0.950	0.792	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.850	0.990	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1758	1485	1485	1710	1342	1485	1738	1676	1398	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	4688	4689	4690	4685	4686	4687	4694	4691	4693	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	237.89	128.68	42.89	33.58	27.47	10.53	326.32	335	198	77.89
s, Saturation Flow Rate	1758	1485	1485	1710	1342	1485	1738	534		1800
								1676	1398	
c, Capacity	557	470	248	114	380	421	550	1506		690
								335	443	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	778		0.38
								0.20	0.32	
X, Volume / Capacity	0.43	0.27	0.17	0.29	0.07	0.03	0.59	0.52		0.11
								1.00	0.45	
d1, Uniform Delay	16.20	11.50	5.36	14.66	7.08	15.52	17.25	0.69		11.92
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	10.29		0.50
d2, Incremental Delay,	2.39	1.43	1.52	6.46	0.37	0.11	4.64	0.50		0.33
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.88		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		1.00
d, Delay	18.59	12.94	6.88	21.12	7.45	15.63	21.89	1.00		12.26
LOS	B	B	A	C	A	B	C	15.18		B
dA, Approach Delay	15.59			15.07			21.89	14.80		
Approach LOS	B			B			C	B		
dI, Intersection Delay	16.67									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.57	0.51	0.32	0.19	0.44	0.47	0.57	0.72	0.66
Q, Average Back of Queue	3.56	1.79	0.68	0.61	0.37	0.14	5.38	8.16	0.92
fB%, % Factor	1.75	1.85	1.94	1.94	1.96	1.99	1.67	1.60	1.92
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	6.21	3.32	1.32	1.19	0.72	0.28	8.98	13.04	1.76

Signal Timing Information										
Approach	N			E			S	W		
Lane Group	4688	4689	4690	4685	4686	4687	4694	4691		4693
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.14	0.09	0.03	0.02	0.02	0.01	0.19	0.20	0.14	0.04
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing										
Approach	N			E			S	W		
Lane Group	4688	4689	4690	4685	4686	4687	4694	4691		4693
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				61.05		13.68		533.68	
PLT, Proportion LT in Lane	0.06				1.00		0.04		1.00	
PLTo, Proportion LT in Opposing Flow	0.04				0.00		0.03		0.00	
LT Volume per Cycle	0.23				1.02		0.23		8.89	
Vo, Opposing Flow	326.32				77.89		237.89		10.53	
Volc, Adjusted Opposing Flow	5.44				1.30		4.16		0.18	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		8.53		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	6.99				0.00		1.61		0.00	
gu	10.47				17.00		10.47		19.00	
PL	0.06				1.00		0.04		1.00	
de facto caused by PL >= 0.05										
EL1	1.78				1.34		1.64		1.26	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.98				0.75		0.99		0.79	
fLT, Left Turn Adjustment	0.98	1.00	1.00	0.95	0.75	1.00	0.99	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.44								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	136	251	21	358	329	69	36	235	417	38	306	34
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	65	5	92	85	18	9	61	107	10	79	9
Adjusted Volume	140	259	22	369	339	71	37	242	430	39	315	35

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	4697	4698	4695	4696	4701	4702	4703	4699	4700
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	140	280	369	410	279	115	315	39	351
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.10

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	4697	4698	4695	4696	4701	4702	4703	4699	4700
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.985
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1773

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	4697	4698	4695	4696	4701	4702	4703	4699	4700
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	140.21	280.41	369.07	410.31	279.38	114.64	315.26	39.18	350.52
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1773
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.5	0.99	0.99	0.57	0.84	0.34	1.1	0.69	0.89
d1, Uniform Delay	34.07	37.45	34.91	20.44	35.22	7.85	26.77	43.04	33.93
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.13	51.80	44.36	3.35	22.28	2.74	83.26	50.95	24.62
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	40.20	89.25	79.26	23.79	57.50	10.59	110.02	93.99	58.55
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	72.90		50.06		73.26			62.11	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.44								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	4697	4698	4695	4696	4701	4702	4703	4699	4700
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.18	7.00	9.20	7.91	6.74	2.41	7.88	0.97	8.50
Q2, Second-term Queued	0.45	3.94	4.93	1.18	2.14	0.27	6.52	0.30	3.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.60
Q, Average Back of Queue	3.64	10.94	14.13	9.09	8.88	2.68	14.40	1.27	11.56
fB%, % Factor	1.74	1.56	1.53	1.58	1.58	1.79	1.53	1.89	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.34	17.03	21.61	14.38	14.07	4.81	22.00	2.39	17.92

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	4697	4698	4695	4696	4701	4702	4703	4699	4700
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.17	0.22	0.24	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	4697	4698	4695	4696	4701	4702	4703	4699	4700
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	34.46	
		Average LOS	C	
		V/C	0.53	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	308	0	144	240	81	80
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	84	0	39	65	22	22
Adjusted Volume	0	0	0	335	0	157	261	88	87

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	4710	4709	4712	4713	4711
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	335	157	261	175
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.50

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	4710	4709	4712	4713	4711
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.642	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.933
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1122	1424	1530	1663

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	4710	4709	4712	4713	4711
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	334.78	156.52	260.87	175
s, Saturation Flow Rate	1800	1122	1424	1530	1663
c, Capacity	1040	349	823	884	517
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.96	0.19	0.3	0.34
d1, Uniform Delay	8.02	30.44	9.01	9.67	23.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	38.94	0.51	0.85	1.77
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	69.39	9.53	10.52	25.64
LOS	A	E	A	B	C
dA, Approach Delay	8.02	69.39	10.15		25.64
Approach LOS	A	E	B		C
dI, Intersection Delay	34.46				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	4710	4709	4712	4713	4711
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	8.22	1.86	3.32	3.37
Q2, Second-term Queued	0.00	3.98	0.23	0.44	0.37
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	12.20	2.09	3.76	3.73
fB%, % Factor	2.00	1.54	1.83	1.74	1.74
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	18.83	3.82	6.52	6.48

Signal Timing Information					
Approach	N	E	S		W
Lane Group	4710	4709	4712	4713	4711
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.30	0.11	0.17	0.11
Critical Lane Group		Y		Y	

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	4710	4709	4712	4713	4711
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	334.78	156.52		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.37	0.00	0.00		
LT Volume per Cycle	0.00	8.37	3.91		
Vo, Opposing Flow	0.00	175.00	0.00		
Volc, Adjusted Opposing F	0.00	4.38	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.68	0.00		
gu	5.00	26.32	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.46	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.64	0.80		
fLT, Left Turn Adjustment	1.00	0.64	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.64	
Average LOS		A	
V/C		0.6	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	376	44	12	37	73	78	618	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	12	3	10	19	21	163	3
Adjusted Volume	75	33	42	56	396	46	13	39	77	82	651	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	4716	4717	4714	4715	4720	4721	4718	4719
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	442	52	77	82	664
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.24	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	4716	4717	4714	4715	4720	4721	4718	4719
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.814	1.000	0.347	1.000	0.911	1.000	0.525	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1465	1530	612	1704	1640	1530	945	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	4716	4717	4714	4715	4720	4721	4718	4719
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	442.11	51.58	76.84	82.11	664.21
s, Saturation Flow Rate	1465	1530	612	1704	1640	1530	945	1759
c, Capacity	244	255	357	994	273	255	551	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.16	0.44	0.19	0.3	0.15	0.65
d1, Uniform Delay	13.49	12.85	3.44	4.22	12.91	13.16	3.42	5.02
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.65	1.39	0.93	1.44	1.52	3.02	0.57	3.16
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.14	14.24	4.37	5.66	14.43	16.18	3.99	8.18
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.76		5.52		15.48		7.72	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.64							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	4716	4717	4714	4715	4720	4721	4718	4719
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.26	2.49	0.44	0.67	0.37	4.45
Q2, Second-term Queued	0.17	0.05	0.05	0.48	0.06	0.10	0.07	1.10
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.29	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.31	2.96	0.50	0.77	0.44	5.54
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.61	5.27	0.98	1.49	0.87	9.23

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	4716	4717	4714	4715	4720	4721	4718	4719
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.38
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	4716	4717	4714	4715	4720	4721	4718	4719
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		12.63		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.24		1.00	
PLTo, Proportion LT in Op	0.10		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.13		0.82	
Vo, Opposing Flow	51.58		664.21		107.37		442.11	
Volc, Adjusted Opposing F	0.54		6.64		1.13		4.42	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.25		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		4.27		0.00		0.38	
gu	6.00		16.73		5.75		20.62	
PL	0.70		1.00		0.24		1.00	
de facto caused by PL >=								
EL1	1.33		2.30		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdiff	0.00		0.00		0.00		0.00	
fm	0.81		0.35		0.91		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.35	1.00	0.91	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.96								
Worst Case Delay				26.11								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	20.00	6.00	33.00	183.00	0.00	17.00	67.00	44.00	11.00	515.00	37.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	20.62	6.19	34.02	188.66	0.00	17.53	69.07	45.36	11.34	530.93	38.14

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	20.62	6.19	34.02			17.53	69.07	45.36	11.34		
Conflicting Volume (Veh)	886.60	848.45	188.66	569.07			842.78	829.38	550.00	188.66		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	886.60	848.45	188.66	569.07			842.78	829.38	550.00	188.66		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	267.09	291.64	858.40	978.83			276.95	308.13	538.65	1397.53		
Capacity	192.62	276.82	858.40	978.83			249.35	292.47	538.65	1397.53		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	20.62	6.19	34.02	188.66	0.00	17.53	69.07	45.36	11.34	530.93	38.14
cmx, Capacity	192.62	276.82	858.40	978.83			249.35	292.47	538.65	1397.53		
V / C	0.01	0.07	0.01	0.03			0.07	0.24	0.08	0.01		
d, Delay	24.76	19.08	10.26	8.81			26.11	23.98	18.35	7.60		
LOS	C	C	B	A			D	C	C	A		
dA, Approach Delay	17.33			1.35			22.33			0.15		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.34						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	27.84	222.68	131.96	580.41
Flared Storage Size				
cmx, Capacity	319.79	978.83	337.78	1397.53
V / C	0.09	0.23	0.39	0.42
Q95, 95% Queue Length	0.28	0.88	1.80	2.09
d, Delay	17.33	8.81	22.33	7.60
LOS	C	A	C	A
dA, Approach Delay	17.33	1.35	22.33	0.15
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.8								
Worst Case Delay				34.03								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	18.00	476.00	9.00	12.00	0.00	0.00	10.00	618.00	19.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	19.78	523.08	9.89	13.19	0.00	0.00	10.99	679.12	20.88

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	19.78			13.19	0.00	0.00	10.99		
Conflicting Volume (Veh)	1268.68	1289.56	528.02	700.00			1278.57	1284.07	689.56	532.97		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1268.68	1289.56	528.02	700.00			1278.57	1284.07	689.56	532.97		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	146.63	165.06	554.28	878.52			144.35	166.32	441.96	995.33		
Capacity	142.90	159.56	554.28	878.52			137.10	160.78	441.96	995.33		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	19.78	523.08	9.89	13.19	0.00	0.00	10.99	679.12	20.88
cmx, Capacity	142.90	159.56	554.28	878.52			137.10	160.78	441.96	995.33		
V / C	0.03	0.02	0.01	0.02			0.10	0.00	0.00	0.01		
d, Delay	31.28	28.65	12.59	9.19			34.03	30.17	15.92	8.66		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	22.84			0.33			34.03			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	19.78	532.97	13.19	10.99	700.00
Flared Storage Size						
cmx, Capacity	215.00			137.10		
V / C	0.06			0.10		
Q95, 95% Queue Length	0.19			0.31		
d, Delay	22.84			34.03		
LOS	C			D		
dA, Approach Delay	22.84	0.33		34.03	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				11.61								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	89.00	204.00	0.00	12.00	36.00	7.00	57.00	1.00	216.00	41.00	20.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	105.95	242.86	0.00	14.29	42.86	8.33	67.86	1.19	257.14	48.81	23.81
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	348.81	57.14	77.38	329.76
Left Turn Flow Rate	0.00	0.00	8.33	257.14
Right Turn Flow Rate	242.86	42.86	1.19	23.81
PLT, Proportion LT	0.00	0.00	0.11	0.78
PRT, Proportion RT	0.70	0.75	0.02	0.07
PHV, Proportion HV	2.30	0.50	0.51	0.78
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.38	-0.44	0.02	0.13

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	348.81	57.14	77.38	329.76
hd initial	3.20	3.20	3.20	3.20
x initial	0.31	0.05	0.07	0.29
hd, iteration 1	4.24	4.47	4.89	4.80
Difference, iteration 1	1.04	1.27	1.69	1.60
hd, iteration 2	4.60	4.91	5.34	5.08
Difference, iteration 2	0.36	0.44	0.45	0.28
hd, iteration 3	4.67	5.03	5.44	5.17
Difference, iteration 3	0.07	0.12	0.11	0.09
hd, iteration 4	4.69	5.06	5.47	5.19
Difference, iteration 4	0.02	0.03	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.69	5.06	5.47	5.19
x final, Degree of Utilization	0.45	0.08	0.12	0.48

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	348.81	57.14	77.38	329.76
hd, Departure Headway	4.69	5.06	5.47	5.19
x, Degree of Utilization	0.45	0.08	0.12	0.48
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.69	3.06	3.47	3.19
Capacity	766.77	710.88	657.74	693.98
Delay	11.55	8.50	9.20	12.79
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	11.55	8.50	9.20	12.79
Approach LOS	B	A	A	B
Intersection Delay	11.61			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.3	
Worst Case Delay	10.24	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	29.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	39.73	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			52.05		219.86	45.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			52.05		219.86	45.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1566.83		772.81	1029.36
Capacity			1566.83		738.91	1029.36

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	39.73	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1566.83		738.91	1029.36
V / C			0.04		0.00	0.09
d, Delay			7.40		10.24	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	52.05	106.85	95.89
Flared Storage Size			
cmx, Capacity		1566.83	1017.93
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.28	
Worst Case Delay	17.89	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	441.00	6.00	3.00	387.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	490.00	6.67	3.33	430.00	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		6.67	3.33		
Conflicting Volume (Veh)	436.67		950.00	433.33		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	436.67		950.00	433.33		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1071.86		291.07	626.73		
Capacity	1071.86		285.98	626.73		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	490.00	6.67	3.33	430.00	6.67
cmx, Capacity	1071.86		285.98	626.73		
V / C	0.01		0.02	0.01		
d, Delay	8.40		17.89	11.05		
LOS	A		C	B		
dA, Approach Delay	0.22		15.61		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	503.33	10.00	436.67
Flared Storage Size			
cmx, Capacity	1071.86	349.28	
V / C	0.47	0.03	
Q95, 95% Queue Length	2.56	0.09	
d, Delay	8.40	15.61	
LOS	A	C	
dA, Approach Delay	0.22	15.61	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.34	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	428.00	8.00	8.00	387.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	480.90	8.99	8.99	434.83	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	439.33		960.67	437.08		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	439.33		960.67	437.08		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1131.30		286.85	623.70		
Capacity	1131.30		279.30	623.70		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	480.90	8.99	8.99	434.83	4.49
cmx, Capacity	1131.30		279.30	623.70		
V / C	0.02		0.03	0.01		
d, Delay	8.24		18.34	11.23		
LOS	A		C	B		
dA, Approach Delay	0.35		14.79		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	502.25	17.98	439.33
Flared Storage Size			
cmx, Capacity	1131.30	385.83	
V / C	0.44	0.05	
Q95, 95% Queue Length	2.33	0.15	
d, Delay	8.24	14.79	
LOS	A	B	
dA, Approach Delay	0.35	14.79	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.63	
Worst Case Delay	9.25	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	13.00	0.00	53.00	15.00	11.00	32.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	14.77	0.00	60.23	17.05	12.50	36.36

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	14.77	0.00			12.50	
Conflicting Volume (Veh)	130.11	68.75			77.27	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	130.11	68.75			77.27	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	868.87	946.22			1484.14	
Capacity	861.39	946.22			1484.14	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	14.77	0.00	60.23	17.05	12.50	36.36
cmx, Capacity	861.39	946.22			1484.14	
V / C	0.02	0.00			0.01	
d, Delay	9.25	8.88			7.45	
LOS	A	A			A	
dA, Approach Delay	9.25		0.00		1.90	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	14.77	77.27	48.86
Flared Storage Size			
cmx, Capacity	861.39		1484.14
V / C	0.02		0.03
Q95, 95% Queue Length	0.05		0.10
d, Delay	9.25		7.45
LOS	A		A
dA, Approach Delay	9.25	0.00	1.90
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.74	
Worst Case Delay	13.03	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	182.00	69.00	78.00	118.00	3.00	78.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	193.62	73.40	82.98	125.53	3.19	82.98

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			82.98		3.19	82.98
Conflicting Volume (Veh)			267.02		521.81	230.32
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			267.02		521.81	230.32
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1290.98		518.65	801.48
Capacity			1290.98		482.65	801.48

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	193.62	73.40	82.98	125.53	3.19	82.98
cmx, Capacity			1290.98		482.65	801.48
V / C			0.06		0.01	0.10
d, Delay			7.98		13.03	10.06
LOS			A		B	B
dA, Approach Delay	0.00		3.18		10.17	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.55			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	267.02	208.51	86.17
Flared Storage Size			
cmx, Capacity		1290.98	782.34
V / C		0.16	0.11
Q95, 95% Queue Length		0.58	0.37
d, Delay		7.98	10.17
LOS		A	B
dA, Approach Delay	0.00	3.18	10.17
Approach LOS			B

Scenario 20

Washington St Alignment without diverter at Linwood

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	67.66
Average LOS	E
V/C	0.96
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	96	382	1	88	258	77	123	472	100
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	99	0	23	67	20	32	123	26
Adjusted Volume	41	269	82	100	398	1	92	269	80	128	492	104

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	22204	22205	22202	22203	22208	22209	22206	22207
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	100	399	92	349	128	596
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.00	0.00	0.23	0.00	0.17

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	22204	22205	22202	22203	22208	22209	22206	22207
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	1.000	1.000	0.966	1.000	0.974
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1764	1644	1721	1676	1702

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	22204	22205	22202	22203	22208	22209	22206	22207
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	100	398.96	91.67	348.96	128.13	595.83
s, Saturation Flow Rate	1710	1720	1644	1764	1644	1721	1676	1702
c, Capacity	46	470	91	504	117	547	120	514
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.1	0.79	0.78	0.64	1.07	1.16
d1, Uniform Delay	27.17	18.58	26.45	18.46	25.57	16.34	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	123.54	12.02	39.06	5.61	102.26	91.98
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	149.99	30.48	64.62	21.95	128.26	111.53
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		54.43		30.83		114.49	
Approach LOS	D		D		C		F	
dI, Intersection Delay	67.66							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	22204	22205	22202	22203	22208	22209	22206	22207
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.56	5.73	1.40	4.64	1.99	9.27
Q2, Second-term Queued	0.44	1.31	2.05	1.71	0.56	0.91	2.32	13.19
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.61	7.43	1.96	5.56	4.32	22.46
fB%, % Factor	1.90	1.64	1.74	1.61	1.84	1.66	1.71	1.51
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.29	11.99	3.60	9.25	7.39	33.81

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	22204	22205	22202	22203	22208	22209	22206	22207
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.20	0.08	0.35
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	22204	22205	22202	22203	22208	22209	22206	22207
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	8.97	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1825	41	1699	14	86
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	491	11	457	4	23
Adjusted Volume	1962	44	1827	15	92

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	22214	22213	22210	22212	22216
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1962	44	1827	15	92
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	22214	22213	22210	22212	22216
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	22214	22213	22210	22212	22216
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1962.37	44.09	1826.88	15.05	92.47
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.74	0.24	0.69	0.01	0.51
d1, Uniform Delay	5.85	48.18	5.32	2.42	49.77
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.87	3.15	1.46	0.02	9.84
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.72	51.33	6.79	2.44	59.61
LOS	A	D	A	A	E
dA, Approach Delay	7.72	51.33	6.75		59.61
Approach LOS	A	D	A		E
dI, Intersection Delay	8.97				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	22214	22213	22210	22212	22216
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.75	1.34	14.18	0.10	2.89
Q2, Second-term Queued	4.51	0.13	3.62	0.02	0.42
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	21.26	1.47	17.81	0.12	3.32
fB%, % Factor	1.51	1.87	1.51	1.99	1.76
Q%, Back of Queue Percentile	90	90	90	90	90
% Back of Queue	32.04	2.75	26.97	0.24	5.83

Signal Timing Information					
Approach	N	E	S		W
Lane Group	22214	22213	22210	22212	22216
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.59	0.03	0.55	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	22214	22213	22210	22212	22216
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Re					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.51								
Average LOS				D								
V/C				0.86								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	109	1667	163	88	204	194	206	1482	88	25	136	30
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	29	443	43	23	54	52	55	394	23	7	36	8
Adjusted Volume	116	1773	173	94	217	206	219	1577	94	27	145	32

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	116	1773	173	94	217	48	158	219	1577	94	27	145	32
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.676	1.000	1.000	1.000	0.950	1.000	1.000	0.557	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1192	3427	1515	1515	1676	3327	1500	1003	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	115.96	1773.4	173.4	93.62	217.02	48.16	158.23	219.15	1576.6	93.62	26.6	144.68	31.91
s, Saturation Flow Rate	1676	3360	1515	1192	3427	1515	1515	1676	3327	1500	1003	3427	1530
c, Capacity	335	1988	896	219	628	303	278	182	1664	750	184	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.35	0.89	0.19	0.43	0.35	0.16	0.57	1.21	0.95	0.12	0.14	0.23	0.11
d1, Uniform Delay	41.25	21.19	11.30	43.43	42.72	9.25	34.26	53.50	28.51	16.00	41.11	41.78	40.87
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.81	6.59	0.48	6.03	1.50	1.12	8.23	133.35	12.72	0.34	1.65	0.85	0.82
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	44.06	27.77	11.78	49.46	44.23	10.37	42.49	186.85	41.23	16.34	42.76	42.64	41.69
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.35			41.49				56.88			42.50		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.51												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.32	26.85	2.67	2.77	3.31	1.33	4.81	7.30	26.23	1.66	0.74	2.16	0.89
Q2, Second-term Queued	0.34	7.70	0.31	0.35	0.34	0.11	0.72	6.48	8.96	0.16	0.07	0.19	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.48	0.64	0.61	0.57	0.42	1.27	1.14	0.43	0.64	0.57
Q, Average Back of Queue	3.66	34.54	2.97	3.12	3.65	1.44	5.53	13.79	35.19	1.83	0.82	2.35	0.96
fB%, % Factor	1.74	1.50	1.78	1.77	1.74	1.87	1.67	1.53	1.50	1.85	1.92	1.81	1.91
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.37	51.83	5.28	5.51	6.35	2.70	9.21	21.12	52.80	3.37	1.57	4.26	1.84

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.53	0.11	0.08	0.06	0.03	0.10	0.13	0.47	0.06	0.03	0.04	0.02
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	22226	22227	22229	22221	22222	22224	22225	22217	22218	22220	22230	22231	22233
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				93.62							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.12							0.89		
Vo, Opposing Flow				144.68							217.02		
Volc, Adjusted Opposing F				2.66							3.98		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.54							2.97		
gu				21.46							19.03		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.44							1.55		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.68							0.56		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	1.00	1.00	1.00	0.95	1.00	1.00	0.56	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				54.48								
Average LOS				D								
V/C				0.99								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	262	1653	22	102	235	78	55	1659	42	7	296	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	68	430	6	27	61	20	14	432	11	2	77	15
Adjusted Volume	273	1722	23	106	245	81	57	1728	44	7	308	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	22250	22251	22253	22248	22244	22245	22247	22254
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	273	1722	23	432	57	1728	44	374
PLT, Proportion Left Turns	1.00	0.00	0.00	0.25	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.19	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	22250	22251	22253	22248	22244	22245	22247	22254
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.675	0.950	1.000	1.000	0.947
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.972	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2140	1613	3360	1471	3046

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	22250	22251	22253	22248	22244	22245	22247	22254
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	272.92	1721.88	22.92	432.29	57.29	1728.13	43.75	373.96
s, Saturation Flow Rate	1710	3327	1530	2140	1613	3360	1471	3046
c, Capacity	309	1897	872	473	149	1618	709	673
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.88	0.91	0.03	0.91	0.38	1.07	0.06	0.56
d1, Uniform Delay	47.91	22.99	11.26	45.65	51.23	31.10	16.61	41.52
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.44	7.86	0.06	24.82	7.32	42.95	0.17	3.29
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.35	30.85	11.32	70.47	58.56	74.05	16.78	44.82
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.79			70.47	72.20			44.82
Approach LOS	D			E	E			D
dI, Intersection Delay	54.48							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	22250	22251	22253	22248	22244	22245	22247	22254
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	8.87	26.86	0.33	7.39	1.80	30.25	0.78	5.81
Q2, Second-term Queued	2.84	8.06	0.03	2.76	0.23	16.03	0.07	0.81
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	11.71	34.93	0.37	10.15	2.02	46.28	0.85	6.63
fB%, % Factor	1.55	1.50	1.96	1.57	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.12	52.41	0.72	15.90	3.71	69.43	1.64	10.82

Signal Timing Information								
Approach	N			E	S			W
Lane Group	22250	22251	22253	22248	22244	22245	22247	22254
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.20	0.04	0.51	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	22250	22251	22253	22248	22244	22245	22247	22254
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				106.25				7.29
PLT, Proportion LT in Lane				0.25				0.02
PLTo, Proportion LT in Op				0.02				0.25
LT Volume per Cycle				3.54				0.24
Vo, Opposing Flow				373.96				432.29
Volc, Adjusted Opposing F				6.55				7.57
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.45				9.50
gu				19.05				11.26
PL				0.70				0.04
de facto caused by PL >=								
EL1				1.91				2.03
EL2				26.30				0.00
gdifff				0.00				0.00
fm				0.44				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.67	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.63
Worst Case Delay	12.21
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	432.00	53.00	396.00	151.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	474.73	58.24	435.16	165.93

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		58.24		
Conflicting Volume (Veh)		518.13		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		518.13		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		557.46		
Capacity		557.46		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	474.73	58.24	435.16	165.93
cmx, Capacity		557.46		
V / C		0.10		
d, Delay		12.21		
LOS		B		
dA, Approach Delay	0.00	12.21	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	474.73	58.24	601.10
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.21	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	18.9	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	373	85	166	428
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	98	22	44	113
Adjusted Volume	89	118	393	89	175	451

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	22271	22270	22272	22274
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	482	175	451
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.19	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	22271	22270	22272	22274
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.350
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1704	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	22271	22270	22272		22274
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	482.11	132	43	450.53
s, Saturation Flow Rate	1627	1704	175		1748
			1693	624	
c, Capacity	560	757	773		971
			132	298	
g/C, Green / Cycle	0.34	0.44	430		0.56
			0.08	0.48	
X, Volume / Capacity	0.37	0.64	0.56		0.46
			1.00	0.14	
d1, Uniform Delay	22.16	19.37	0.41		11.98
k, Delay Calibration	0.50	0.50	11.22		0.50
d2, Incremental Delay	1.87	4.06	0.50		1.59
d3, Initial Queue Delay	0.00	0.00	2.84		0.00
Rp, Platoon Ratio	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.34	0.44	1.00		0.56
PF, Progression Factor	1.00	1.00	0.08		1.00
d, Delay	24.04	23.43	1.00		13.57
LOS	C	C	14.06		B
dA, Approach Delay	24.04	23.43	B		13.71
Approach LOS	C	C	B		
dI, Intersection Delay	18.9				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	22271	22270	22272	22274
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.34	2.51	6.74
Q2, Second-term Queued	0.44	1.58	0.43	0.95
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.63	1.12
Q, Average Back of Queue	4.34	10.91	2.94	7.70
fB%, % Factor	1.71	1.56	1.78	1.61
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	16.99	5.22	12.37

Signal Timing Information					
Approach	N	E	W		
Lane Group	22271	22270	22272		22274
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.28	0.08	0.07	0.26
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	22271	22270	22272	22274	
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				482.11	
Volc, Adjusted Opposing Flow				12.05	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				13.79	
gu				29.21	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.94	
EL2				0.00	
gdifff				0.00	
fm				0.35	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.35	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe												
		Control Type		TWSC								
		Method		HCM 2000								
		dI, Average Delay		3.42								
		Worst Case Delay		26.18								
		Worst Case LOS		D								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	26.00	389.00	34.00	9.00	0.00	91.00	6.00	307.00	23.00	9.00	42.00	41.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	28.57	427.47	37.36	9.89	0.00	100.00	6.59	337.36	25.27	9.89	46.15	45.05

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	28.57			9.89	0.00	100.00	6.59			9.89	46.15	45.05
Conflicting Volume (Veh)	362.64			912.09	885.16	350.00	464.84			916.48	879.12	446.15
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	362.64			912.09	885.16	350.00	464.84			916.48	879.12	446.15
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1168.83			256.70	285.99	693.37	1107.11			254.95	286.15	603.88
Capacity	1168.83			200.58	274.28	693.37	1107.11			211.36	274.43	603.88

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	7.00			0.00	0.00	2.00	0.00			0.00	2.00	6.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.17			7.10	6.50	6.22	4.10			7.10	6.52	6.26
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.26			3.50	4.00	3.32	2.20			3.50	4.02	3.35

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	28.57	427.47	37.36	9.89	0.00	100.00	6.59	337.36	25.27	9.89	46.15	45.05
cmx, Capacity	1168.83			200.58	274.28	693.37	1107.11			211.36	274.43	603.88
V / C	0.02			0.05	0.00	0.14	0.01			0.05	0.17	0.07
d, Delay	8.16			24.46	19.64	11.71	8.27			26.18	22.27	15.11
LOS	A			C	C	B	A			D	C	C
dA, Approach Delay	0.47			12.86			0.15			19.46		
Approach LOS				B						C		
dRank1, Rank 1 Delay	0.27						0.06					

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	493.41	109.89	369.23	101.10
Flared Storage Size				
cmx, Capacity	1168.83	567.82	1107.11	349.12
V / C	0.42	0.19	0.33	0.29
Q95, 95% Queue Length	2.14	0.71	1.48	1.18
d, Delay	8.16	12.86	8.27	19.46
LOS	A	B	A	C
dA, Approach Delay	0.47	12.86	0.15	19.46
Approach LOS		B		C

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.63								
Worst Case Delay				12.72								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	24.00	103.00	23.00	73.00	20.00	15.00	7.00	33.00	47.00	5.00	15.00	15.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	26.09	111.96	25.00	79.35	21.74	16.30	7.61	35.87	51.09	5.43	16.30	16.30

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	26.09	111.96	25.00	79.35			7.61	35.87	51.09	5.43		
Conflicting Volume (Veh)	267.39	232.07	29.89	32.61			292.39	232.07	24.46	38.04		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	267.39	232.07	29.89	32.61			292.39	232.07	24.46	38.04		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	689.34	668.02	1036.06	1592.47			655.86	669.77	1057.68	1585.26		
Capacity	601.86	631.76	1036.06	1592.47			530.65	633.41	1057.68	1585.26		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	26.09	111.96	25.00	79.35	21.74	16.30	7.61	35.87	51.09	5.43	16.30	16.30
cmx, Capacity	601.86	631.76	1036.06	1592.47			530.65	633.41	1057.68	1585.26		
V / C	0.04	0.18	0.02	0.05			0.01	0.06	0.05	0.00		
d, Delay	12.72	12.44	10.22	7.38			12.40	11.30	9.02	7.28		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	12.14			4.99			10.15			1.04		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.38						0.03		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	163.04	117.39	94.57	38.04
Flared Storage Size				
cmx, Capacity	666.33	1592.47	792.87	1585.26
V / C	0.24	0.07	0.12	0.02
Q95, 95% Queue Length	0.96	0.24	0.40	0.07
d, Delay	12.14	7.38	10.15	7.28
LOS	B	A	B	A
dA, Approach Delay	12.14	4.99	10.15	1.04
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.9								
Worst Case Delay				36.61								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	120.00	133.00	7.00	83.00	37.00	89.00	33.00	124.00	143.00	6.00	18.00	56.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	141.18	156.47	8.24	97.65	43.53	104.71	38.82	145.88	168.24	7.06	21.18	65.88

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	141.18			97.65	43.53	104.71	38.82			7.06	21.18	65.88
Conflicting Volume (Veh)	314.12			790.00	754.71	230.00	164.71			824.71	834.71	160.59
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	314.12			790.00	754.71	230.00	164.71			824.71	834.71	160.59
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1240.48			309.06	340.32	809.21	1425.89			294.03	305.95	879.23
Capacity	1240.48			239.10	291.52	809.21	1425.89			202.33	262.08	879.23

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	141.18	156.47	8.24	97.65	43.53	104.71	38.82	145.88	168.24	7.06	21.18	65.88
cmx, Capacity	1240.48			239.10	291.52	809.21	1425.89			202.33	262.08	879.23
V / C	0.11			0.41	0.15	0.13	0.03			0.03	0.08	0.07
d, Delay	8.27			36.61	33.91	10.11	7.60			24.50	20.45	10.80
LOS	A			E	D	B	A			C	C	B
dA, Approach Delay	3.82			24.85			0.84			14.00		
Approach LOS				C						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	141.18	164.71	141.18	104.71	352.94	94.12
Flared Storage Size						
cmx, Capacity			253.14		1425.89	493.74
V / C			0.56		0.25	0.19
Q95, 95% Queue Length			3.10		0.98	0.70
d, Delay			35.78		7.60	14.00
LOS			E		A	B
dA, Approach Delay	3.82		24.85		0.84	14.00
Approach LOS			C			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.35	
Worst Case Delay	16.27	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	33.00	23.00	315.00	50.00	29.00	319.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	35.11	24.47	335.11	53.19	30.85	339.36

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	35.11	24.47			30.85	
Conflicting Volume (Veh)	762.77	361.70			388.30	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	762.77	361.70			388.30	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	371.05	687.48			1181.22	
Capacity	358.94	687.48			1181.22	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	35.11	24.47	335.11	53.19	30.85	339.36
cmx, Capacity	358.94	687.48			1181.22	
V / C	0.10	0.04			0.03	
d, Delay	16.27	11.47			8.13	
LOS	C	B			A	
dA, Approach Delay	14.30		0.00		0.68	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.27	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	59.57	388.30	370.21
Flared Storage Size			
cmx, Capacity	446.60		1181.22
V / C	0.13		0.31
Q95, 95% Queue Length	0.46		1.35
d, Delay	14.30		8.13
LOS	B		A
dA, Approach Delay	14.30	0.00	0.68
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.59	
Worst Case Delay	28.07	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	34.00	487.00	4.00	22.00	755.00	5.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	34.69	496.94	4.08	22.45	770.41	5.10

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	34.69		4.08	22.45		
Conflicting Volume (Veh)	775.51		1339.29	772.96		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	775.51		1339.29	772.96		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	836.02		170.09	395.82		
Capacity	836.02		163.03	395.82		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	34.69	496.94	4.08	22.45	770.41	5.10
cmx, Capacity	836.02		163.03	395.82		
V / C	0.04		0.03	0.06		
d, Delay	9.49		28.07	15.08		
LOS	A		D	C		
dA, Approach Delay	0.62		17.08		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	34.69	496.94	26.53	775.51
Flared Storage Size				
cmx, Capacity			324.53	
V / C			0.08	
Q95, 95% Queue Length			0.27	
d, Delay			17.08	
LOS			C	
dA, Approach Delay	0.62		17.08	0.00
Approach LOS			C	

Node 14271: Home & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				7.32								
Average LOS				A								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	54.00	7.00	4.00	0.00	8.00	3.00	49.00	3.00	8.00	0.00	14.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	57.45	7.45	4.26	0.00	8.51	3.19	52.13	3.19	8.51	0.00	14.89
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	58.51	23.40
Left Turn Flow Rate	22.34	4.26	3.19	8.51
Right Turn Flow Rate	7.45	8.51	3.19	14.89
PLT, Proportion LT	0.26	0.33	0.05	0.36
PRT, Proportion RT	0.09	0.67	0.05	0.64
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.02	-0.31

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	58.51	23.40
hd initial	3.20	3.20	3.20	3.20
x initial	0.08	0.01	0.05	0.02
hd, iteration 1	4.01	3.83	4.01	3.85
Difference, iteration 1	0.81	0.63	0.81	0.65
hd, iteration 2	4.03	3.90	4.03	3.91
Difference, iteration 2	0.02	0.07	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.90	4.03	3.91
x final, Degree of Utilization	0.10	0.01	0.07	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	87.23	12.77	58.51	23.40
hd, Departure Headway	4.03	3.90	4.03	3.91
x, Degree of Utilization	0.10	0.01	0.07	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.90	2.03	1.91
Capacity	892.91	923.15	891.60	919.75
Delay	7.46	6.95	7.32	7.01
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.46	6.95	7.32	7.01
Approach LOS	A	A	A	A
Intersection Delay	7.32			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				14.16								
Average LOS				B								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	73.00	22.00	44.00	226.00	1.00	62.00	130.00	77.00	16.00	170.00	164.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	80.22	24.18	48.35	248.35	1.10	68.13	142.86	84.62	17.58	186.81	180.22
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	105.49	297.80	68.13	227.47	384.62
Left Turn Flow Rate	1.10	48.35	68.13	0.00	17.58
Right Turn Flow Rate	24.18	1.10	0.00	84.62	180.22
PLT, Proportion LT	0.01	0.16	1.00	0.00	0.05
PRT, Proportion RT	0.23	0.00	0.00	0.37	0.47
PHV, Proportion HV	2.67	2.83	1.00	1.37	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.09	0.08	0.52	-0.24	-0.26

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	105.49	297.80	68.13	227.47	384.62
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.09	0.26	0.06	0.20	0.34
hd, iteration 1	5.33	4.96	6.24	5.47	4.54
Difference, iteration 1	2.13	1.76	3.04	2.27	1.34
hd, iteration 2	6.12	5.59	6.83	6.06	5.17
Difference, iteration 2	0.79	0.64	0.59	0.59	0.62
hd, iteration 3	6.43	5.80	7.07	6.31	5.36
Difference, iteration 3	0.30	0.21	0.24	0.24	0.19
hd, iteration 4	6.53	5.88	7.15	6.38	5.43
Difference, iteration 4	0.10	0.08	0.08	0.08	0.07
hd, iteration 5	6.57	5.91	7.18	6.41	5.46
Difference, iteration 5	0.04	0.03	0.03	0.03	0.02
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.57	5.91	7.18	6.41	5.46
x final, Degree of Utilizatio	0.19	0.49	0.14	0.41	0.58

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	105.49	297.80	68.13	227.47	384.62
hd, Departure Headway	6.57	5.91	7.18	6.41	5.46
x, Degree of Utilization	0.19	0.49	0.14	0.41	0.58
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.57	3.91	4.88	4.11	3.46
Capacity	547.56	608.40	500.34	560.68	659.56
Delay	11.13	14.43	11.01	13.42	15.79
LOS	B	B	B	B	C
Q95, 95% Queue Length					
Approach Delay	11.13	14.43	12.86		15.79
Approach LOS	B	B	B		C
Intersection Delay	14.16				
Intersection LOS	B				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	6.62	
Worst Case Delay	28.36	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	152.00	152.00	136.00	145.00	259.00	198.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	155.10	155.10	138.78	147.96	264.29	202.04

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	155.10		138.78	147.96		
Conflicting Volume (Veh)	466.33		830.61	365.31		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	466.33		830.61	365.31		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1105.71		342.42	682.04		
Capacity	1105.71		289.56	682.04		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	155.10	155.10	138.78	147.96	264.29	202.04
cmx, Capacity	1105.71		289.56	682.04		
V / C	0.14		0.48	0.22		
d, Delay	8.79		28.36	11.73		
LOS	A		D	B		
dA, Approach Delay	4.39		19.78		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.36				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	310.20	138.78	147.96	466.33
Flared Storage Size				
cmx, Capacity	1105.71			
V / C	0.28			
Q95, 95% Queue Length	1.16			
d, Delay	8.79			
LOS	A			
dA, Approach Delay	4.39	19.78		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.44	
Worst Case Delay	15.86	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	45.00	22.00	291.00	32.00	9.00	326.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	50.56	24.72	326.97	35.96	10.11	366.29

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	50.56	24.72			10.11	
Conflicting Volume (Veh)	731.46	344.94			362.92	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	731.46	344.94			362.92	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	391.56	702.49			1206.83	
Capacity	387.38	702.49			1206.83	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	50.56	24.72	326.97	35.96	10.11	366.29
cmx, Capacity	387.38	702.49			1206.83	
V / C	0.13	0.04			0.01	
d, Delay	15.86	11.69			8.01	
LOS	C	B			A	
dA, Approach Delay	14.49		0.00		0.22	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	75.28	362.92	376.40
Flared Storage Size			
cmx, Capacity	454.29		1206.83
V / C	0.17		0.31
Q95, 95% Queue Length	0.59		1.34
d, Delay	14.49		8.01
LOS	B		A
dA, Approach Delay	14.49	0.00	0.22
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	10.67	
Average LOS	B	
V/C	0.63	
Loss Time	8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	141	121	190	0	228	22	0	102	22	115	432	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	38	33	51	0	61	6	0	27	6	31	116	1
Adjusted Volume	152	130	204	0	245	24	0	110	24	124	465	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	22301	22302	22299	22300	22305	22306	22303	22304
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	282	204	0	269	110	24	124	470
PLT, Proportion Left Turns	0.54	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.09	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	22301	22302	22299	22300	22305	22306	22303	22304
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.816	1.000	0.441	1.000	1.000	1.000	0.627	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.987	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1439	1485	793	1741	1782	1530	1045	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	22301	22302	22299	22300	22305	22306	22303	22304
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	281.72	204.3	0	268.82	109.68	23.66	123.66	469.89
s, Saturation Flow Rate	1439	1485	793	1741	1782	1530	1045	1762
c, Capacity	432	446	344	755	535	459	453	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.65	0.46	0	0.36	0.21	0.05	0.27	0.62
d1, Uniform Delay	9.14	8.52	4.82	5.70	7.83	7.47	5.46	6.57
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.47	3.37	0.00	1.31	0.87	0.21	1.49	3.70
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.61	11.89	4.82	7.01	8.70	7.68	6.95	10.26
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.63		7.01		8.52		9.57	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.67							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	22301	22302	22299	22300	22305	22306	22303	22304
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.04	1.38	0.00	1.50	0.68	0.14	0.66	3.03
Q2, Second-term Queued	0.54	0.25	0.00	0.24	0.09	0.02	0.11	0.69
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.29	0.30	0.25	0.43	0.34	0.31	0.30	0.44
Q, Average Back of Queue	2.58	1.63	0.00	1.74	0.77	0.16	0.78	3.71
fB%, % Factor	1.80	1.86	2.00	1.85	1.93	1.98	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.64	3.04	0.00	3.23	1.48	0.31	1.50	6.46

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	22301	22302	22299	22300	22305	22306	22303	22304
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.14	0.00	0.15	0.06	0.02	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	22301	22302	22299	22300	22305	22306	22303	22304
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	151.61		0.00				123.66	
PLT, Proportion LT in Lane	0.54		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.26		0.00				1.03	
Vo, Opposing Flow	109.68		469.89				268.82	
Volc, Adjusted Opposing F	0.96		3.92				2.24	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.01				0.00	
gu	9.00		10.99				13.00	
PL	0.54		1.00				1.00	
de facto caused by PL >=								
EL1	1.42		1.92				1.60	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.82		0.44				0.63	
fLT, Left Turn Adjustment	0.82	1.00	0.44	1.00	1.00	1.00	0.63	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	16.33
Average LOS	B
V/C	0.29
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	227	153	58	0	10	4	240	24	513	68	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	60	40	15	0	3	1	63	6	135	18	0
Adjusted Volume	14	239	161	61	0	11	4	253	25	540	72	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	22310	22311	22312	22307	22308	22309	22316	22313	22315
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	253	121	40	34	27	11	282	540	72
PLT, Proportion Left Turns	0.05	0.00	0.00	1.00	1.00	0.00	0.01	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	1.00	0.09	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	22310	22311	22312	22307	22308	22309	22316	22313		22315
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.980	1.000	1.000	0.950	0.750	1.000	0.996	0.950	0.792	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.850	0.988	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1764	1485	1485	1710	1350	1485	1753	1676	1398	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	22310	22311	22312	22307	22308	22309	22316	22313		22315
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	252.63	120.79	40.26	33.58	27.47	10.53	282.11	335	205	71.58
s, Saturation Flow Rate	1764	1485	1485	1710	1350	1485	1753	540		1800
								1676	1398	
c, Capacity	559	470	248	114	382	421	555	1506		690
								335	443	
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	778		0.38
								0.20	0.32	
X, Volume / Capacity	0.45	0.26	0.16	0.29	0.07	0.03	0.51	0.52		0.1
								1.00	0.46	
d1, Uniform Delay	16.35	11.44	5.35	14.66	7.08	15.52	16.69	0.69		11.88
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	10.36		0.50
d2, Incremental Delay,	2.63	1.32	1.41	6.46	0.36	0.11	3.30	0.50		0.30
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	1.00		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20		1.00
d, Delay	18.98	12.75	6.76	21.12	7.44	15.63	19.99	1.00		12.18
LOS	B	B	A	C	A	B	B	15.42		B
dA, Approach Delay	15.97			15.06			19.99	15.04		
Approach LOS	B			B			B	B		
dI, Intersection Delay	16.33									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.57	0.51	0.32	0.19	0.44	0.47	0.57	0.72	0.66
Q, Average Back of Queue	3.82	1.67	0.64	0.61	0.37	0.14	4.41	8.34	0.84
fB%, % Factor	1.73	1.86	1.94	1.94	1.96	1.99	1.71	1.59	1.92
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	6.63	3.11	1.24	1.19	0.72	0.28	7.52	13.29	1.62

Signal Timing Information

Approach	N			E			S	W		
Lane Group	22310	22311	22312	22307	22308	22309	22316	22313		22315
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.14	0.08	0.03	0.02	0.02	0.01	0.16	0.20	0.15	0.04
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing

Approach	N			E			S	W		
Lane Group	22310	22311	22312	22307	22308	22309	22316	22313		22315
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				61.05		4.21		540.00	
PLT, Proportion LT in Lane	0.05				1.00		0.01		1.00	
PLTo, Proportion LT in Opposing Flow	0.01				0.00		0.03		0.00	
LT Volume per Cycle	0.23				1.02		0.07		9.00	
Vo, Opposing Flow	282.11				71.58		252.63		10.53	
Volc, Adjusted Opposing Flow	4.70				1.19		4.42		0.18	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		11.16		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	5.73				0.00		2.09		0.00	
gu	10.47				17.00		7.84		19.00	
PL	0.05				1.00		0.01		1.00	
de facto caused by PL >= 0.05										
EL1	1.70				1.33		1.67		1.26	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.98				0.75		1.00		0.79	
fLT, Left Turn Adjustment	0.98	1.00	1.00	0.95	0.75	1.00	1.00	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				62.27								
Average LOS				E								
V/C				0.98								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	131	247	21	356	325	69	35	236	417	31	294	41
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	34	64	5	92	84	18	9	61	107	8	76	11
Adjusted Volume	135	255	22	367	335	71	36	243	430	32	303	42

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	22319	22320	22317	22318	22323	22324	22325	22321	22322
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	135	276	367	406	279	115	315	32	345
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.18	0.00	1.00	1.00	0.00	0.12

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	22319	22320	22317	22318	22323	22324	22325	22321	22322
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.994	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.982
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1767

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	22319	22320	22317	22318	22323	22324	22325	22321	22322
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	135.05	276.29	367.01	406.19	279.38	114.64	315.26	31.96	345.36
s, Saturation Flow Rate	1693	1694	1676	1735	1753	1515	1515	1710	1767
c, Capacity	282	282	373	713	331	337	286	57	393
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.48	0.98	0.99	0.57	0.84	0.34	1.1	0.56	0.88
d1, Uniform Delay	33.96	37.34	34.85	20.37	35.22	7.85	26.77	42.85	33.84
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.72	48.37	43.06	3.28	22.26	2.74	83.26	34.34	23.39
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	39.67	85.71	77.91	23.65	57.48	10.59	110.02	77.19	57.22
LOS	D	F	E	C	E	B	F	E	E
dA, Approach Delay	70.59		49.41		73.26			58.91	
Approach LOS	E		D		E			E	
dI, Intersection Delay	62.27								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	22319	22320	22317	22318	22323	22324	22325	22321	22322
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.06	6.88	9.14	7.81	6.74	2.41	7.88	0.79	8.35
Q2, Second-term Queued	0.42	3.67	4.79	1.16	2.14	0.27	6.52	0.19	2.91
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.48	10.55	13.93	8.96	8.88	2.68	14.40	0.97	11.25
fB%, % Factor	1.75	1.56	1.53	1.58	1.58	1.79	1.53	1.91	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.09	16.47	21.32	14.19	14.07	4.81	22.00	1.86	17.47

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	22319	22320	22317	22318	22323	22324	22325	22321	22322
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.16	0.22	0.23	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	22319	22320	22317	22318	22323	22324	22325	22321	22322
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Re									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	33.91	
		Average LOS	C	
		V/C	0.53	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	318	0	144	241	81	65
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	86	0	39	65	22	18
Adjusted Volume	0	0	0	346	0	157	262	88	71

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	22332	22331	22334	22335	22333
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	346	157	262	159
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.45

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	22332	22331	22334	22335	22333
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.668	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.940
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1168	1424	1530	1675

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	22332	22331	22334	22335	22333
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	345.65	156.52	261.96	158.7
s, Saturation Flow Rate	1800	1168	1424	1530	1675
c, Capacity	1040	363	823	884	521
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.95	0.19	0.3	0.3
d1, Uniform Delay	8.02	30.33	9.01	9.68	23.59
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	36.39	0.51	0.86	1.51
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	66.73	9.53	10.53	25.10
LOS	A	E	A	B	C
dA, Approach Delay	8.02	66.73	10.16		25.10
Approach LOS	A	E	B		C
dI, Intersection Delay	33.91				
Intersection LOS	C				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	22332	22331	22334	22335	22333
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	8.46	1.86	3.34	3.02
Q2, Second-term Queued	0.00	3.95	0.23	0.44	0.31
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.56	1.00	1.05	0.72
Q, Average Back of Queue	0.00	12.40	2.09	3.78	3.33
fB%, % Factor	2.00	1.54	1.83	1.74	1.76
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	19.12	3.82	6.55	5.86

Signal Timing Information					
Approach	N	E	S		W
Lane Group	22332	22331	22334	22335	22333
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.30	0.11	0.17	0.09
Critical Lane Group		Y		Y	

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	22332	22331	22334	22335	22333
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	345.65	156.52		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.37	0.00	0.00		
LT Volume per Cycle	0.00	8.64	3.91		
Vo, Opposing Flow	0.00	158.70	0.00		
Volc, Adjusted Opposing F	0.00	3.97	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	0.99	0.00		
gu	5.00	27.01	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.44	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.67	0.80		
fLT, Left Turn Adjustment	1.00	0.67	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.44	
Average LOS		A	
V/C		0.58	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	376	44	15	37	71	78	590	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	12	4	10	19	21	155	3
Adjusted Volume	75	33	42	56	396	46	16	39	75	82	621	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	22338	22339	22336	22337	22342	22343	22340	22341
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	442	55	75	82	635
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.29	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	22338	22339	22336	22337	22342	22343	22340	22341
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.812	1.000	0.369	1.000	0.894	1.000	0.525	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1461	1530	652	1704	1610	1530	945	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	22338	22339	22336	22337	22342	22343	22340	22341
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	442.11	54.74	74.74	82.11	634.74
s, Saturation Flow Rate	1461	1530	652	1704	1610	1530	945	1759
c, Capacity	244	255	380	994	268	255	551	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.15	0.44	0.2	0.29	0.15	0.62
d1, Uniform Delay	13.49	12.85	3.42	4.22	12.94	13.14	3.42	4.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.70	1.39	0.81	1.44	1.71	2.90	0.57	2.80
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.19	14.24	4.23	5.66	14.65	16.04	3.99	7.69
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.80		5.50		15.45		7.27	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.44							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	22338	22339	22336	22337	22342	22343	22340	22341
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.25	2.49	0.47	0.65	0.37	4.14
Q2, Second-term Queued	0.17	0.05	0.05	0.48	0.06	0.10	0.07	0.97
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.31	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.31	2.96	0.53	0.75	0.44	5.11
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.68
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.60	5.27	1.04	1.45	0.87	8.59

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	22338	22339	22336	22337	22342	22343	22340	22341
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.36
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	22338	22339	22336	22337	22342	22343	22340	22341
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		15.79		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.29		1.00	
PLTo, Proportion LT in Op	0.12		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.16		0.82	
Vo, Opposing Flow	54.74		634.74		107.37		442.11	
Volc, Adjusted Opposing F	0.57		6.35		1.13		4.42	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.08		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		3.67		0.00		0.38	
gu	6.00		17.33		5.92		20.62	
PL	0.70		1.00		0.29		1.00	
de facto caused by PL >=								
EL1	1.33		2.24		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.37		0.89		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.37	1.00	0.89	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
				Control Type		TWSC						
				Method		HCM 2000						
				dI, Average Delay		4.35						
				Worst Case Delay		26.67						
				Worst Case LOS		D						

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	31.00	164.00	0.00	28.00	69.00	40.00	11.00	520.00	36.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	31.96	169.07	0.00	28.87	71.13	41.24	11.34	536.08	37.11

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	31.96			28.87	71.13	41.24	11.34		
Conflicting Volume (Veh)	866.49	828.87	169.07	573.20			823.20	810.31	554.64	169.07		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	866.49	828.87	169.07	573.20			823.20	810.31	554.64	169.07		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	275.56	299.46	880.14	975.35			285.57	316.07	535.40	1420.68		
Capacity	200.68	285.09	880.14	975.35			258.93	300.90	535.40	1420.68		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adj	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	31.96	169.07	0.00	28.87	71.13	41.24	11.34	536.08	37.11
cmx, Capacity	200.68	285.09	880.14	975.35			258.93	300.90	535.40	1420.68		
V / C	0.01	0.07	0.01	0.03			0.11	0.24	0.08	0.01		
d, Delay	23.89	18.58	10.04	8.82			26.67	24.73	19.49	7.55		
LOS	C	C	B	A			D	C	C	A		
dA, Approach Delay	16.82			1.40			23.60			0.15		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.32						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	201.03	141.24	584.54
Flared Storage Size				
cmx, Capacity	331.44	975.35	332.40	1420.68
V / C	0.08	0.21	0.42	0.41
Q95, 95% Queue Length	0.26	0.77	2.04	2.06
d, Delay	16.82	8.82	23.60	7.55
LOS	C	A	C	A
dA, Approach Delay	16.82	1.40	23.60	0.15
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.73								
Worst Case Delay				32.01								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	15.00	477.00	9.00	11.00	0.00	0.00	10.00	595.00	13.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	16.48	524.18	9.89	12.09	0.00	0.00	10.99	653.85	14.29

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	16.48			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1237.91	1252.20	529.12	668.13			1244.51	1250.00	660.99	534.07		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1237.91	1252.20	529.12	668.13			1244.51	1250.00	660.99	534.07		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	153.95	173.77	553.48	903.07			152.35	174.30	458.92	994.38		
Capacity	150.53	168.72	553.48	903.07			145.30	169.23	458.92	994.38		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	16.48	524.18	9.89	12.09	0.00	0.00	10.99	653.85	14.29
cmx, Capacity	150.53	168.72	553.48	903.07			145.30	169.23	458.92	994.38		
V / C	0.03	0.02	0.01	0.02			0.08	0.00	0.00	0.01		
d, Delay	29.91	27.33	12.50	9.06			32.01	28.51	15.08	8.66		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	22.01			0.27			32.01			0.14		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	16.48	534.07	12.09	10.99	668.13
Flared Storage Size						
cmx, Capacity	224.77			145.30		
V / C	0.06			0.08		
Q95, 95% Queue Length	0.19			0.27		
d, Delay	22.01			32.01		
LOS	C			D		
dA, Approach Delay	22.01	0.27		32.01	0.14	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	10.93		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	92.00	218.00	0.00	11.00	36.00	7.00	144.00	1.00	131.00	40.00	19.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	109.52	259.52	0.00	13.10	42.86	8.33	171.43	1.19	155.95	47.62	22.62
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	369.05	55.95	180.95	226.19
Left Turn Flow Rate	0.00	0.00	8.33	155.95
Right Turn Flow Rate	259.52	42.86	1.19	22.62
PLT, Proportion LT	0.00	0.00	0.05	0.69
PRT, Proportion RT	0.70	0.77	0.01	0.10
PHV, Proportion HV	2.30	0.47	0.22	0.69
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.38	-0.45	0.01	0.09

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	369.05	55.95	180.95	226.19
hd initial	3.20	3.20	3.20	3.20
x initial	0.33	0.05	0.16	0.20
hd, iteration 1	4.15	4.58	4.70	4.96
Difference, iteration 1	0.95	1.38	1.50	1.76
hd, iteration 2	4.48	5.04	5.07	5.29
Difference, iteration 2	0.33	0.46	0.37	0.34
hd, iteration 3	4.56	5.17	5.16	5.40
Difference, iteration 3	0.08	0.13	0.09	0.10
hd, iteration 4	4.58	5.20	5.19	5.42
Difference, iteration 4	0.02	0.03	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.58	5.20	5.19	5.42
x final, Degree of Utilization	0.47	0.08	0.26	0.34

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	369.05	55.95	180.95	226.19
hd, Departure Headway	4.58	5.20	5.19	5.42
x, Degree of Utilization	0.47	0.08	0.26	0.34
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.58	3.20	3.19	3.42
Capacity	785.31	691.97	693.06	663.55
Delay	11.56	8.66	10.01	11.19
LOS	B	A	B	B
Q95, 95% Queue Length				
Approach Delay	11.56	8.66	10.01	11.19
Approach LOS	B	A	B	B
Intersection Delay	10.93			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.25	
Worst Case Delay	10.26	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	32.00	9.00	49.00	28.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	43.84	12.33	67.12	38.36	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			56.16		222.60	50.00
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			56.16		222.60	50.00
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1561.46		770.04	1024.01
Capacity			1561.46		736.18	1024.01

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	43.84	12.33	67.12	38.36	2.74	93.15
cmx, Capacity			1561.46		736.18	1024.01
V / C			0.04		0.00	0.09
d, Delay			7.41		10.26	8.89
LOS			A		B	A
dA, Approach Delay	0.00		4.71		8.93	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.33			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	56.16	105.48	95.89
Flared Storage Size			
cmx, Capacity		1561.46	1012.70
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.41	8.93
LOS		A	A
dA, Approach Delay	0.00	4.71	8.93
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.2	
Worst Case Delay	18.09	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	10.00	449.00	3.00	3.00	402.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	11.11	498.89	3.33	3.33	446.67	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	11.11		3.33	3.33		
Conflicting Volume (Veh)	453.33		971.11	450.00		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	453.33		971.11	450.00		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1056.48		282.79	613.35		
Capacity	1056.48		278.58	613.35		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	11.11	498.89	3.33	3.33	446.67	6.67
cmx, Capacity	1056.48		278.58	613.35		
V / C	0.01		0.01	0.01		
d, Delay	8.44		18.09	11.04		
LOS	A		C	B		
dA, Approach Delay	0.18		14.56		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.13				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	510.00	6.67	453.33
Flared Storage Size			
cmx, Capacity	1056.48	383.14	
V / C	0.48	0.02	
Q95, 95% Queue Length	2.69	0.05	
d, Delay	8.44	14.56	
LOS	A	B	
dA, Approach Delay	0.18	14.56	0.00
Approach LOS		B	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.23	
Worst Case Delay	18.04	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	7.00	445.00	3.00	8.00	401.00	5.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	7.87	500.00	3.37	8.99	450.56	5.62

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	7.87		3.37	8.99		
Conflicting Volume (Veh)	456.18		969.10	453.37		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	456.18		969.10	453.37		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1115.26		283.57	610.68		
Capacity	1115.26		280.74	610.68		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	7.87	500.00	3.37	8.99	450.56	5.62
cmx, Capacity	1115.26		280.74	610.68		
V / C	0.01		0.01	0.01		
d, Delay	8.25		18.04	11.11		
LOS	A		C	B		
dA, Approach Delay	0.13		13.00		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.08				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	507.87	12.36	456.18
Flared Storage Size			
cmx, Capacity	1115.26	462.45	
V / C	0.46	0.03	
Q95, 95% Queue Length	2.43	0.08	
d, Delay	8.25	13.00	
LOS	A	B	
dA, Approach Delay	0.13	13.00	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.51	
Worst Case Delay	9.32	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	51.00	15.00	10.00	46.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	57.95	17.05	11.36	52.27

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			11.36	
Conflicting Volume (Veh)	141.48	66.48			75.00	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	141.48	66.48			75.00	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	856.11	949.02			1487.00	
Capacity	849.36	949.02			1487.00	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	57.95	17.05	11.36	52.27
cmx, Capacity	849.36	949.02			1487.00	
V / C	0.02	0.00			0.01	
d, Delay	9.32	8.87			7.44	
LOS	A	A			A	
dA, Approach Delay	9.32		0.00		1.33	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	75.00	63.64
Flared Storage Size			
cmx, Capacity	849.36		1487.00
V / C	0.02		0.04
Q95, 95% Queue Length	0.06		0.13
d, Delay	9.32		7.44
LOS	A		A
dA, Approach Delay	9.32	0.00	1.33
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	2.86	
Worst Case Delay	12.74	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	163.00	65.00	78.00	115.00	3.00	79.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	173.40	69.15	82.98	122.34	3.19	84.04

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			82.98		3.19	84.04
Conflicting Volume (Veh)			242.55		496.28	207.98
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			242.55		496.28	207.98
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1317.98		536.58	824.86
Capacity			1317.98		500.18	824.86

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	173.40	69.15	82.98	122.34	3.19	84.04
cmx, Capacity			1317.98		500.18	824.86
V / C			0.06		0.01	0.10
d, Delay			7.91		12.74	9.91
LOS			A		B	A
dA, Approach Delay	0.00		3.20		10.01	
Approach LOS					B	
dRank1, Rank 1 Delay	0.00		0.54			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	242.55	205.32	87.23
Flared Storage Size			
cmx, Capacity		1317.98	805.73
V / C		0.16	0.11
Q95, 95% Queue Length		0.55	0.36
d, Delay		7.91	10.01
LOS		A	B
dA, Approach Delay	0.00	3.20	10.01
Approach LOS			B

Scenario 21

Washington St Alignment with Monroe St Gap Open

Node 10386: King Rd & Linwood Ave	
Control Type	Signalized
Method	HCM 2000
Average Delay	78.85
Average LOS	E
V/C	1
Loss Time	16

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	39	258	79	97	379	5	91	248	66	129	512	96
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	10	67	21	25	99	1	24	65	17	34	133	25
Adjusted Volume	41	269	82	101	395	5	95	258	69	134	533	100

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	L	C	L	C	L	C	L	C
ID	30078	30079	30076	30077	30082	30083	30080	30081
Lanes	L	RT	L	RT	L	RT	L	RT
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	41	351	101	400	95	327	134	633
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.23	0.00	0.01	0.00	0.21	0.00	0.16

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	30078	30079	30076	30077	30082	30083	30080	30081
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	1.000	4.000	2.000	4.000	1.000	2.000	3.000
fHV, HV Adjustment	1.000	0.990	0.962	0.980	0.962	0.990	0.980	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.950	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.965	1.000	0.998	1.000	0.968	1.000	0.976
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	1720	1644	1761	1644	1726	1676	1706

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	30078	30079	30076	30077	30082	30083	30080	30081
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
V, Volume	40.63	351.04	101.04	400	94.79	327.08	134.38	633.33
s, Saturation Flow Rate	1710	1720	1644	1761	1644	1726	1676	1706
c, Capacity	46	470	91	503	117	549	120	515
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
X, Volume / Capacity	0.89	0.75	1.11	0.79	0.81	0.6	1.12	1.23
d1, Uniform Delay	27.17	18.58	26.45	18.48	25.62	16.08	26.00	19.55
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	102.36	10.38	127.21	12.24	42.91	4.72	118.84	119.67
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	129.52	28.96	153.66	30.72	68.53	20.80	144.84	139.22
LOS	F	C	F	C	E	C	F	F
dA, Approach Delay	39.39		55.51		31.52		140.21	
Approach LOS	D		E		C		F	
dI, Intersection Delay	78.85							
Intersection LOS	E							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	30078	30079	30076	30077	30082	30083	30080	30081
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.30
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.63	4.99	1.57	5.75	1.45	4.28	2.09	9.85
Q2, Second-term Queued	0.44	1.31	2.15	1.73	0.63	0.77	2.90	17.18
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.09	0.48	0.15	0.51	0.18	0.54	0.19	0.51
Q, Average Back of Queue	1.07	6.30	3.72	7.48	2.08	5.06	4.99	27.03
fB%, % Factor	1.90	1.64	1.74	1.61	1.83	1.68	1.68	1.50
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.04	10.34	6.47	12.06	3.81	8.50	8.41	40.60

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	30078	30079	30076	30077	30082	30083	30080	30081
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	28	36	0	8	28	33.5	0	7.1
Green Time End	29.5	51.3	3.1	24	32	51.3	4	24
G, Actual Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
gi, Effective Green Time	1.5	15.3	3.1	16	4	17.8	4	16.9
g/C, Green / Cycle	0.03	0.27	0.06	0.29	0.07	0.32	0.07	0.3
(v/s)i, Volume / Saturation	0.02	0.20	0.06	0.23	0.06	0.19	0.08	0.37
Critical Lane Group		Y			Y		Y	Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	30078	30079	30076	30077	30082	30083	30080	30081
Control Type	Prot	No Left	Prot	No Left	Prot	No Left	Prot	No Left
Subject is Single(S) or Mul								
Opposed by Single(S) or M								
C, Cycle Length								
G(s), Actual GT								
g(s), Eff. perm. GT								
go(s), Opposing Eff. GT								
No, Number Lanes in Opp								
N, Number Left Lanes								
VLT, Adj. LT Flow Rate								
PLT, Proportion LT in Lane								
PLTo, Proportion LT in Op								
LT Volume per Cycle								
Vo, Opposing Flow								
Volc, Adjusted Opposing F								
FLUo, Opposing Lane Utili								
Rpo, Opposing Platoon Ra								
gf								
qro, Opposing Queue Rati								
gq, Opposing Queue Clear								
gu								
PL								
de facto caused by PL >=								
EL1								
EL2								
gdifff								
fm								
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.02	0.00		0.00	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10395: OR 224 & Monroe St		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	9.02	
Average LOS	A	
V/C	0.71	
Loss Time	10	

Volume and Adjustments by Movement					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
Base Volume	1823	41	1697	14	89
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	490	11	456	4	24
Adjusted Volume	1960	44	1825	15	96

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	R	C	R	R
ID	30088	30087	30084	30086	30090
Lanes	T, T	R	T, T	R	R
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1960	44	1825	15	96
PLT, Proportion Left Turns	0.00	0.00	0.00	0.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	1.00	1.00

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	30088	30087	30084	30086	30090
Control Type	No Left	No Left	No Left	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	2	1	2	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	3.000	0.000	3.000	0.000	0.000
fHV, HV Adjustment	0.971	1.000	0.971	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	0.952	1.000	0.952	1.000	1.000
fLT, Left Turn Adjustment	1.000	1.000	1.000	1.000	1.000
fRT, Right Turn Adjustment	1.000	0.865	1.000	0.850	0.865
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	3327	1557	3327	1530	1557

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	30088	30087	30084	30086	30090
Control Type	No Left	No Left	No Left	No Left	No Left
V, Volume	1960.22	44.09	1824.73	15.05	95.7
s, Saturation Flow Rate	3327	1557	3327	1530	1557
c, Capacity	2662	182	2662	1224	182
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
X, Volume / Capacity	0.74	0.24	0.69	0.01	0.53
d1, Uniform Delay	5.84	48.18	5.31	2.42	49.88
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	1.86	3.15	1.46	0.02	10.51
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.80	0.12	0.80	0.80	0.12
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	7.70	51.33	6.77	2.44	60.40
LOS	A	D	A	A	E
dA, Approach Delay	7.70	51.33	6.74		60.40
Approach LOS	A	D	A		E
dI, Intersection Delay	9.02				
Intersection LOS	A				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	30088	30087	30084	30086	30090
g/C, Green / Cycle	0.80	0.12	0.80	0.80	0.12
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	16.70	1.34	14.15	0.10	3.00
Q2, Second-term Queued	4.50	0.13	3.61	0.02	0.45
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.77	0.42	1.77	1.61	0.42
Q, Average Back of Queue	21.20	1.47	17.76	0.12	3.45
fB%, % Factor	1.51	1.87	1.51	1.99	1.75
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	31.95	2.75	26.89	0.24	6.05

Signal Timing Information					
Approach	N	E	S		W
Lane Group	30088	30087	30084	30086	30090
Control Type	No Left	No Left	No Left	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	6.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	4.00	2.00	4.00	4.00	2.00
Green Time Start	18	0	18	18	0
Green Time End	114	14	114	114	14
G, Actual Green Time	96	14	96	96	14
gi, Effective Green Time	96	14	96	96	14
g/C, Green / Cycle	0.8	0.12	0.8	0.8	0.12
(v/s)i, Volume / Saturation	0.59	0.03	0.55	0.01	0.06
Critical Lane Group	Y				Y

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	30088	30087	30084	30086	30090
Control Type	No Left	No Left	No Left	No Left	No Left
Subject is Single(S) or Mul					
Opposed by Single(S) or M					
C, Cycle Length					
G(s), Actual GT					
g(s), Eff. perm. GT					
go(s), Opposing Eff. GT					
No, Number Lanes in Opp					
N, Number Left Lanes					
VLT, Adj. LT Flow Rate					
PLT, Proportion LT in Lane					
PLTo, Proportion LT in Op					
LT Volume per Cycle					
Vo, Opposing Flow					
Volc, Adjusted Opposing F					
FLUo, Opposing Lane Utili					
Rpo, Opposing Platoon Ra					
gf					
qro, Opposing Queue Rati					
gq, Opposing Queue Clear					
gu					
PL					
de facto caused by PL >=					
EL1					
EL2					
gdiff					
fm					
fLT, Left Turn Adjustment	1.00	1.00	1.00	1.00	1.00

Pedestrian and Bicycle Adjustment Factors					
Approach	N	E	S		W
Movement	T	R1	T	R1	R1
gp, Pedestrian Green		0.00		0.00	0.00
OCCpedg, Average Pedes		0.00		0.00	0.00
OCCr, Relevant Conflict Zo		0.00		0.00	0.00
ApbT, Adjustment Factor		1.00		1.00	1.00
fRpb, Right Turn Factor		1.00		1.00	1.00
fLpb, Left Turn Factor		1.00		1.00	1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10396: OR 224 & Oak St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				41.69								
Average LOS				D								
V/C				0.87								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	108	1676	156	88	211	192	206	1482	87	25	133	28
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Peak 15 Volume	29	446	41	23	56	51	55	394	23	7	35	7
Adjusted Volume	115	1783	166	94	224	204	219	1577	93	27	141	30

Volume and Adjustments by Lane Group													
Approach	N			E				S			W		
Lane Group	L	C	R	L	C	R	R	L	C	R	L	C	R
ID	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
Lanes	L	T, T	R	L	T, T	R	R	L	T, T	R	L	T, T	R
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	115	1783	166	94	224	48	157	219	1577	93	27	141	30
PLT, Proportion Left Turns	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00

Saturation Flow Rate													
Approach	N			E				S			W		
Lane Group	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	1	2	1	1	1	2	1	1	2	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	2.000	1.000	2.000	0.000	1.000	1.000	2.000	3.000	2.000	0.000	0.000	0.000
fHV, HV Adjustment	0.980	0.980	0.990	0.980	1.000	0.990	0.990	0.980	0.971	0.980	1.000	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	1.000	0.952	1.000	1.000	1.000	0.952	1.000	1.000	0.952	1.000
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.681	1.000	1.000	1.000	0.950	1.000	1.000	0.545	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	0.850	1.000	1.000	0.850	0.850	1.000	1.000	0.850	1.000	1.000	0.850
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane													
s, Saturation Flow Rate	1676	3360	1515	1202	3427	1515	1515	1676	3327	1500	982	3427	1530

Capacity, Control Delay, and Level of Service Determination													
Approach	N			E				S			W		
Lane Group	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
V, Volume	114.89	1782.98	165.96	93.62	224.47	47.66	156.6	219.15	1576.6	92.55	26.6	141.49	29.79
s, Saturation Flow Rate	1676	3360	1515	1202	3427	1515	1515	1676	3327	1500	982	3427	1530
c, Capacity	335	1988	896	220	628	303	278	182	1664	750	180	628	281
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
X, Volume / Capacity	0.34	0.9	0.19	0.42	0.36	0.16	0.56	1.21	0.95	0.12	0.15	0.23	0.11
d1, Uniform Delay	41.23	21.31	11.24	43.40	42.82	9.25	34.22	53.50	28.51	15.99	41.13	41.74	40.81
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	2.77	6.86	0.46	5.90	1.58	1.11	8.05	133.35	12.72	0.34	1.73	0.83	0.76
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on C	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	44.00	28.17	11.69	49.30	44.40	10.36	42.27	186.85	41.23	16.32	42.86	42.57	41.57
LOS	D	C	B	D	D	B	D	F	D	B	D	D	D
dA, Approach Delay	27.73			41.53				56.91			42.46		
Approach LOS	C			D				E			D		
dI, Intersection Delay	41.69												
Intersection LOS	D												

Back of Queue													
Approach	N			E				S			W		
Arrival Type	3			3				3			3		
Lane Group	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
g/C, Green / Cycle	0.20	0.59	0.59	0.18	0.18	0.20	0.18	0.11	0.50	0.50	0.18	0.18	0.18
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.29	27.16	2.54	2.76	3.43	1.31	4.75	7.30	26.23	1.64	0.74	2.11	0.83
Q2, Second-term Queued	0.33	7.89	0.29	0.35	0.35	0.11	0.70	6.48	8.96	0.16	0.07	0.19	0.07
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.65	1.44	1.29	0.48	0.64	0.61	0.57	0.42	1.27	1.14	0.42	0.64	0.57
Q, Average Back of Queue	3.62	35.05	2.83	3.11	3.79	1.42	5.46	13.79	35.19	1.80	0.82	2.30	0.89
fB%, % Factor	1.74	1.50	1.78	1.77	1.73	1.88	1.67	1.53	1.50	1.85	1.92	1.82	1.92
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
% Back of Queue	6.31	52.59	5.05	5.51	6.57	2.67	9.10	21.12	52.80	3.34	1.57	4.17	1.72

Signal Timing Information													
Approach	N			E				S			W		
Lane Group	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Signal Type	P	P	P	P	P	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00
Green Time Start	26	43	43	0	0	26	0	26	54	54	0	0	0
Green Time End	50	114	114	22	22	50	22	39	114	114	22	22	22
G, Actual Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
gi, Effective Green Time	24	71	71	22	22	24	22	13	60	60	22	22	22
g/C, Green / Cycle	0.2	0.59	0.59	0.18	0.18	0.2	0.18	0.11	0.5	0.5	0.18	0.18	0.18
(v/s)i, Volume / Saturation	0.07	0.53	0.11	0.08	0.07	0.03	0.10	0.13	0.47	0.06	0.03	0.04	0.02
Critical Lane Group		Y					Y	Y					

Left Turn Adjustment Factors for Permitted Phasing													
Approach	N			E				S			W		
Lane Group	30100	30101	30103	30095	30096	30098	30099	30091	30092	30094	30104	30105	30107
Control Type	Prot	No Left	No Left	Perm	No Left	No Left	No Left	Prot	No Left	No Left	Perm	No Left	No Left
Subject is Single(S) or Mul				S							S		
Opposed by Single(S) or M				M							M		
C, Cycle Length				120.00							120.00		
G(s), Actual GT				22.00							22.00		
g(s), Eff. perm. GT				22.00							22.00		
go(s), Opposing Eff. GT				22.00							22.00		
No, Number Lanes in Opp				2							2		
N, Number Left Lanes				1.00							1.00		
VLT, Adj. LT Flow Rate				93.62							26.60		
PLT, Proportion LT in Lane				1.00							1.00		
PLTo, Proportion LT in Op				0.00							0.00		
LT Volume per Cycle				3.12							0.89		
Vo, Opposing Flow				141.49							224.47		
Volc, Adjusted Opposing F				2.60							4.12		
FLUo, Opposing Lane Utili				0.91							0.91		
Rpo, Opposing Platoon Re				1.00							1.00		
gf				0.00							0.00		
qro, Opposing Queue Rati				0.82							0.82		
gq, Opposing Queue Clear				0.43							3.23		
gu				21.57							18.77		
PL				1.00							1.00		
de facto caused by PL >=													
EL1				1.44							1.56		
EL2				0.00							0.00		
gdifff				0.00							0.00		
fm				0.68							0.55		
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	1.00	1.00	1.00	0.95	1.00	1.00	0.55	1.00	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 10441: OR 224 & Harrison St												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				54.28								
Average LOS				D								
V/C				0.99								
Loss Time				14								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	262	1652	22	100	235	80	56	1657	42	7	297	56
PHF, Peak-hour factor	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
Peak 15 Volume	68	430	6	26	61	21	15	432	11	2	77	15
Adjusted Volume	273	1721	23	104	245	83	58	1726	44	7	309	58

Volume and Adjustments by Lane Group								
Approach	N			E	S			W
Lane Group	L	C	R	C	L	C	R	C
ID	30124	30125	30127	30122	30118	30119	30121	30128
Lanes	L	T, T	R	LT, RT	L	T, T	R	LT, RT
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	273	1721	23	432	58	1726	44	375
PLT, Proportion Left Turns	1.00	0.00	0.00	0.24	1.00	0.00	0.00	0.02
PRT, Proportion Right Turns	0.00	0.00	1.00	0.19	0.00	0.00	1.00	0.16

Saturation Flow Rate								
Approach	N			E	S			W
Lane Group	30124	30125	30127	30122	30118	30119	30121	30128
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	2	1	2	1	2	1	2
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	0.000	5.000	6.000	2.000	4.000	4.000
fHV, HV Adjustment	1.000	0.971	1.000	0.952	0.943	0.980	0.962	0.962
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	0.952	1.000	0.952	1.000	0.952	1.000	0.952
fLT, Left Turn Adjustment	0.950	1.000	1.000	0.676	0.950	1.000	1.000	0.947
fRT, Right Turn Adjustment	1.000	1.000	0.850	0.971	1.000	1.000	0.850	0.977
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1710	3327	1530	2141	1613	3360	1471	3047

Capacity, Control Delay, and Level of Service Determination								
Approach	N			E	S			W
Lane Group	30124	30125	30127	30122	30118	30119	30121	30128
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
V, Volume	272.92	1720.83	22.92	432.29	58.33	1726.04	43.75	375
s, Saturation Flow Rate	1710	3327	1530	2141	1613	3360	1471	3047
c, Capacity	309	1897	872	473	149	1618	709	673
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
X, Volume / Capacity	0.88	0.91	0.03	0.91	0.39	1.07	0.06	0.56
d1, Uniform Delay	47.91	22.98	11.26	45.64	51.27	31.10	16.61	41.54
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	28.44	7.82	0.06	24.72	7.53	42.49	0.17	3.31
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	76.35	30.80	11.32	70.36	58.80	73.59	16.78	44.85
LOS	E	C	B	E	E	E	B	D
dA, Approach Delay	36.74			70.36	71.76			44.85
Approach LOS	D			E	E			D
dI, Intersection Delay	54.28							
Intersection LOS	D							

Back of Queue								
Approach	N			E	S			W
Arrival Type	3			3	3			3
Lane Group	30124	30125	30127	30122	30118	30119	30121	30128
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	8.87	26.83	0.33	7.39	1.83	30.22	0.78	5.83
Q2, Second-term Queued	2.84	8.04	0.03	2.76	0.23	15.93	0.07	0.82
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.61	1.39	1.27	0.53	0.37	1.25	1.10	0.67
Q, Average Back of Queue	11.71	34.87	0.37	10.15	2.06	46.15	0.85	6.65
fB%, % Factor	1.55	1.50	1.96	1.57	1.83	1.50	1.92	1.63
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	18.12	52.32	0.72	15.89	3.78	69.23	1.64	10.85

Signal Timing Information								
Approach	N			E	S			W
Lane Group	30124	30125	30127	30122	30118	30119	30121	30128
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	6.00	6.00	4.00	4.00	6.00	6.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00
l2, Clearance Loss Time	2.00	4.00	4.00	2.00	2.00	4.00	4.00	2.00
Green Time Start	30.5	45.6	45.6	0	30.5	56.2	56.2	0
Green Time End	52.2	114	114	26.5	41.6	114	114	26.5
G, Actual Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
gi, Effective Green Time	21.7	68.4	68.4	26.5	11.1	57.8	57.8	26.5
g/C, Green / Cycle	0.18	0.57	0.57	0.22	0.09	0.48	0.48	0.22
(v/s)i, Volume / Saturation	0.16	0.52	0.01	0.20	0.04	0.51	0.03	0.12
Critical Lane Group	Y			Y		Y		

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N			E	S			W
Lane Group	30124	30125	30127	30122	30118	30119	30121	30128
Control Type	Prot	No Left	No Left	Perm	Prot	No Left	No Left	Perm
Subject is Single(S) or Mul				M				M
Opposed by Single(S) or M				M				M
C, Cycle Length				120.00				120.00
G(s), Actual GT				26.50				26.50
g(s), Eff. perm. GT				26.50				26.50
go(s), Opposing Eff. GT				26.50				26.50
No, Number Lanes in Opp				2				2
N, Number Left Lanes				2.00				2.00
VLT, Adj. LT Flow Rate				104.17				7.29
PLT, Proportion LT in Lane				0.24				0.02
PLTo, Proportion LT in Op				0.02				0.24
LT Volume per Cycle				3.47				0.24
Vo, Opposing Flow				375.00				432.29
Volc, Adjusted Opposing F				6.57				7.57
FLUo, Opposing Lane Utili				0.95				0.95
Rpo, Opposing Platoon Ra				1.00				1.00
gf				0.00				15.24
qro, Opposing Queue Rati				0.78				0.78
gq, Opposing Queue Clear				7.49				9.50
gu				19.01				11.26
PL				0.69				0.04
de facto caused by PL >=								
EL1				1.91				2.03
EL2				26.40				0.00
gdiff				0.00				0.00
fm				0.44				0.98
fLT, Left Turn Adjustment	0.95	1.00	1.00	0.68	0.95	1.00	1.00	0.95

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.02	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13755: Fuller & King	
Control Type	TWSC
Method	HCM 2000
dI, Average Delay	0.67
Worst Case Delay	12.25
Worst Case LOS	B

Volume and Adjustments				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Base Volume	422.00	56.00	391.00	159.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910
V, Adjusted Volume	463.74	61.54	429.67	174.73

Pedestrians				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Flow (Ped/hr)		0.00		
w, Lane Width (ft)		12.00		
Sp, Walking Speed (ft/s)		4.00		
fpb, Percent Blockage		0.00		

Capacity of Movements below Rank 1				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
Rank	1	2	1	1
vx, Volume		61.54		
Conflicting Volume (Veh)		517.03		
Conflicting Volume (Ped)		0.00		
Conflicting Volume		517.03		
Two-Stage Gap Acceptance				
Number of Storage Spaces				
cpx, Potential Capacity		558.26		
Capacity		558.26		

Critical Gap and Follow Up Time				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
tc,base, Base Critical Gap		6.20		
tc,base,I, Base Critical Gap				
tc,base,II, Base Critical Gap				
tc,HV, Heavy Vehicles Adj		1.00		
Phv, % Heavy Vehicles		2.00		
tc,G, Grade Adjustment Fa		0.10		
G, % Grade	0.00	0.00	0.00	
T3,It, Geometry Adjustmen		0.00		
tc, Critical Gap		6.22		
tc,I, Critical Gap (Stage I)				
tc,II, Critical Gap (Stage II)				
tf,base, Base Follow-Up Ti		3.30		
tf,hv, Heavy Vehicles Adju		0.90		
tf, Follow-Up Time		3.32		

Delay and Level of Service by Movement				
Approach	E (Major)	S	W (Major)	
Movement	T	R1	T	R1
vx, Volume	463.74	61.54	429.67	174.73
cmx, Capacity		558.26		
V / C		0.11		
d, Delay		12.25		
LOS		B		
dA, Approach Delay	0.00	12.25	0.00	
Approach LOS		B		
dRank1, Rank 1 Delay	0.00		0.00	

Delay and Level of Service by Lane			
Approach	E (Major)	S	W (Major)
Lane	Lane 2	Lane 1	Lane 1
Movements			T, R1
vx, Volume	463.74	61.54	604.40
Flared Storage Size			
cmx, Capacity			
V / C			
Q95, 95% Queue Length			
d, Delay			
LOS			
dA, Approach Delay	0.00	12.25	0.00
Approach LOS		B	

Node 13758: King Rd & Bell Ave		
Control Type	Signalized	
Method	HCM 2000	
Average Delay	19.16	
Average LOS	B	
V/C	0.46	
Loss Time	9	

Volume and Adjustments by Movement						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
Base Volume	85	112	383	85	166	451
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	22	29	101	22	44	119
Adjusted Volume	89	118	403	89	175	475

Volume and Adjustments by Lane Group				
Approach	N	E	W	
Lane Group	C	C	L	C
ID	30145	30144	30146	30148
Lanes	LTR	RT	L	T
Control Type	Split	No Left	Prot/Perm	No Left
V, Volume	207	493	175	475
PLT, Proportion Left Turns	0.43	0.00	1.00	0.00
PRT, Proportion Right Turns	0.57	0.18	0.00	0.00

Saturation Flow Rate				
Approach	N	E	W	
Lane Group	30145	30144	30146	30148
Control Type	Split	No Left	Prot/Perm	
			Prot	Perm
so, Base Saturation Flow Rate	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	3.000
fHV, HV Adjustment	1.000	0.971	0.990	0.971
fg, Grade Adjustment	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.979	1.000	0.950	0.340
fRT, Right Turn Adjustment	0.923	0.975	1.000	1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000
Has Short Lane				
s, Saturation Flow Rate	1627	1705	1693	1748

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	W		
Lane Group	30145	30144	30146		30148
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
V, Volume	207.37	492.63	132	43	474.74
			175		
s, Saturation Flow Rate	1627	1705	1693	606	1748
			758		
c, Capacity	560	758	132	290	971
			421		
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
X, Volume / Capacity	0.37	0.65	1.00	0.15	0.49
			0.41		
d1, Uniform Delay	22.16	19.53	11.33		12.20
k, Delay Calibration	0.50	0.50	0.50		0.50
d2, Incremental Delay,	1.87	4.30	2.99		1.76
d3, Initial Queue Delay	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.34	0.44	0.08		0.56
PF, Progression Factor	1.00	1.00	1.00		1.00
d, Delay	24.04	23.83	14.32		13.96
LOS	C	C	B		B
dA, Approach Delay	24.04	23.83	14.06		
Approach LOS	C	C	B		
dI, Intersection Delay	19.16				
Intersection LOS	B				

Back of Queue				
Approach	N	E	W	
Arrival Type	3	3	3	
Lane Group	30145	30144	30146	30148
g/C, Green / Cycle	0.34	0.44	0.56	0.56
PF2, Progression Factor	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.90	9.62	2.52	7.24
Q2, Second-term Queued	0.44	1.66	0.44	1.05
XU, Upstream V/C	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00

kB, Early Arrival Adj. Factor	0.76	0.94	0.62	1.12
Q, Average Back of Queue	4.34	11.29	2.96	8.29
fB%, % Factor	1.71	1.55	1.78	1.60
Q%, Back of Queue Percentage	90	90	90	90
% Back of Queue	7.42	17.52	5.26	13.23

Signal Timing Information					
Approach	N	E	W		
Lane Group	30145	30144	30146		30148
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Signal Type	P	P	P		P
C, Cycle Length	90.00	90.00	90.00		90.00
Gp, Minimum Pedestrian T	0	0	0		0
L, Total Loss Time per Cyc	4.50	4.50	4.50		4.50
I1, Start Up Loss Time	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	0.00	0.00	0	0	0.00
I2, Clearance Loss Time	2.50	2.50	0	2.5	2.50
Green Time Start	54.5	9	0	9	0
Green Time End	85.5	49	9	50	50
G, Actual Green Time	31	40	9	41	50
gi, Effective Green Time	31	40	7	43	50
g/C, Green / Cycle	0.34	0.44	0.08	0.48	0.56
			0.56		
(v/s)i, Volume / Saturation	0.13	0.29	0.08	0.07	0.27
Critical Lane Group	Y	Y			

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	W		
Lane Group	30145	30144	30146		30148
Control Type	Split	No Left	Prot/Perm		No Left
			Prot	Perm	
Subject is Single(S) or Multiple(M)				S	
Opposed by Single(S) or Multiple(M)				M	
C, Cycle Length				90.00	
G(s), Actual GT				41.00	
g(s), Eff. perm. GT				43.00	
go(s), Opposing Eff. GT				40.00	
No, Number Lanes in Opposing Flow				1	
N, Number Left Lanes				1.00	
VLT, Adj. LT Flow Rate				174.74	
PLT, Proportion LT in Lane				1.00	
PLTo, Proportion LT in Opposing Flow				0.00	
LT Volume per Cycle				4.37	
Vo, Opposing Flow				492.63	
Volc, Adjusted Opposing Flow				12.32	
FLUo, Opposing Lane Utilization				1.00	
Rpo, Opposing Platoon Ratio				1.00	
gf				0.00	
qro, Opposing Queue Ratio				0.56	
gq, Opposing Queue Clearance				14.34	
gu				28.66	
PL				1.00	
de facto caused by PL >= 0.5					
EL1				1.96	
EL2				0.00	
gdifff				0.00	
fm				0.34	
fLT, Left Turn Adjustment	0.98	1.00	0.95	0.34	1.00

Pedestrian and Bicycle Adjustment Factors						
Approach	N		E		W	
Movement	L1	R1	T	R1	L1	T
gp, Pedestrian Green	0.00	0.00		0.00	0.00	
OCCpedg, Average Pedestrian Green	0.00	0.00		0.00	0.00	
OCCCr, Relevant Conflict Zone	0.00	0.00		0.00	0.00	
ApbT, Adjustment Factor	1.00	1.00		1.00	1.00	
fRpb, Right Turn Factor	1.00	1.00		1.00	1.00	
fLpb, Left Turn Factor	1.00	1.00		1.00	1.00	

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 13762: Linwood & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.95	
Worst Case Delay	11.82	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Base Volume	394.00	51.00	103.00	316.00	34.00	59.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	432.97	56.04	113.19	347.25	37.36	64.84

Pedestrians						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Flow (Ped/hr)			0.00			0.00
w, Lane Width (ft)			12.00			12.00
Sp, Walking Speed (ft/s)			4.00			4.00
fpb, Percent Blockage			0.00			0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
Rank	1	1	2	1	1	2
vx, Volume			113.19			64.84
Conflicting Volume (Veh)			365.93			460.99
Conflicting Volume (Ped)			0.00			0.00
Conflicting Volume			365.93			460.99
Two-Stage Gap Acceptance						
Number of Storage Spaces						
cpx, Potential Capacity			679.24			592.29
Capacity			679.24			592.29

Critical Gap and Follow Up Time						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
tc,base, Base Critical Gap			6.20			6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00			1.00
Phv, % Heavy Vehicles			2.00			6.00
tc,G, Grade Adjustment Factor			0.10			0.10
G, % Grade	0.00		0.00	0.00		0.00
T3,It, Geometry Adjustment			0.00			0.00
tc, Critical Gap			6.22			6.26
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			3.30			3.30
tf,hv, Heavy Vehicles Adjustment			0.90			0.90
tf, Follow-Up Time			3.32			3.35

Delay and Level of Service by Movement						
Approach	N (Major)		E	S (Major)		W
Movement	T	R1	R1	T	R1	R1
vx, Volume	432.97	56.04	113.19	347.25	37.36	64.84
cmx, Capacity			679.24			592.29
V / C			0.17			0.11
d, Delay			11.36			11.82
LOS			B			B
dA, Approach Delay	0.00		11.36	0.00		11.82
Approach LOS			B			B
dRank1, Rank 1 Delay	0.00			0.00		

Delay and Level of Service by Lane				
Approach	N (Major)	E	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	T, R1		T, R1	
vx, Volume	489.01	113.19	384.62	64.84
Flared Storage Size				
cmx, Capacity				
V / C				
Q95, 95% Queue Length				
d, Delay				
LOS				
dA, Approach Delay	0.00	11.36	0.00	11.82
Approach LOS		B		B

Node 13764: Fuller & Monroe												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				7.44								
Worst Case Delay				12.25								
Worst Case LOS				B								

Volume and Adjustments												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	24.00	118.00	16.00	25.00	77.00	15.00	13.00	35.00	47.00	7.00	16.00	21.00
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
V, Adjusted Volume	26.09	128.26	17.39	27.17	83.70	16.30	14.13	38.04	51.09	7.61	17.39	22.83

Pedestrians												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	26.09	128.26	17.39	27.17			14.13	38.04	51.09	7.61		
Conflicting Volume (Veh)	234.78	201.63	91.85	40.22			263.04	198.37	28.80	100.00		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	234.78	201.63	91.85	40.22			263.04	198.37	28.80	100.00		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	724.04	694.46	957.31	1582.39			685.67	699.14	1051.88	1505.29		
Capacity	647.91	678.26	957.31	1582.39			565.42	682.83	1051.88	1505.29		

Critical Gap and Follow Up Time												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	2.00	5.00	0.00			4.00	1.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.52	6.25	4.10			7.14	6.51	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.02	3.34	2.20			3.54	4.01	3.30	2.20		

Delay and Level of Service by Movement												
Approach	NE			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	26.09	128.26	17.39	27.17	83.70	16.30	14.13	38.04	51.09	7.61	17.39	22.83
cmx, Capacity	647.91	678.26	957.31	1582.39			565.42	682.83	1051.88	1505.29		
V / C	0.04	0.19	0.02	0.02			0.02	0.06	0.05	0.01		
d, Delay	12.25	12.01	10.46	7.31			12.03	10.94	9.09	7.40		
LOS	B	B	B	A			B	B	A	A		
dA, Approach Delay	11.89			1.56			10.17			1.18		
Approach LOS	B						B					
dRank1, Rank 1 Delay				0.13						0.04		

Delay and Level of Service by Lane				
Approach	NE	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	171.74	127.17	103.26	47.83
Flared Storage Size				
cmx, Capacity	693.81	1582.39	798.78	1505.29
V / C	0.25	0.08	0.13	0.03
Q95, 95% Queue Length	0.97	0.26	0.44	0.10
d, Delay	11.89	7.31	10.17	7.40
LOS	B	A	B	A
dA, Approach Delay	11.89	1.56	10.17	1.18
Approach LOS	B		B	

Node 13770: Fuller & Causey & Harmony Dr												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				8.71								
Worst Case Delay				37.73								
Worst Case LOS				E								

Volume and Adjustments												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	126.00	146.00	7.00	84.00	39.00	86.00	32.00	130.00	149.00	5.00	6.00	46.00
PHF, Peak-hour factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
V, Adjusted Volume	148.24	171.76	8.24	98.82	45.88	101.18	37.65	152.94	175.29	5.88	7.06	54.12

Pedestrians												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
w, Lane Width (ft)	12.00			12.00	12.00	12.00	12.00			12.00	12.00	12.00
Sp, Walking Speed (ft/s)	4.00			4.00	4.00	4.00	4.00			4.00	4.00	4.00
fpb, Percent Blockage	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00

Capacity of Movements below Rank 1												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	2	1	1	4	3	2	2	1	1	4	3	2
vx, Volume	148.24			98.82	45.88	101.18	37.65			5.88	7.06	54.12
Conflicting Volume (Veh)	328.24			814.71	792.35	240.59	180.00			861.76	875.88	175.88
Conflicting Volume (Ped)	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
Conflicting Volume	328.24			814.71	792.35	240.59	180.00			861.76	875.88	175.88
Two-Stage Gap Acceptance				No	No					No	No	
Number of Storage Spaces												
cpx, Potential Capacity	1225.72			297.45	323.72	798.29	1407.72			277.60	289.57	862.16
Capacity	1225.72			241.41	275.13	798.29	1407.72			187.69	246.11	862.16

Critical Gap and Follow Up Time												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	4.10			7.10	6.50	6.20	4.10			7.10	6.50	6.20
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00			1.00	1.00	1.00	1.00			1.00	1.00	1.00
Phv, % Heavy Vehicles	3.00			1.00	0.00	2.00	0.00			0.00	0.00	4.00
tc,G, Grade Adjustment Factor	1.00			0.20	0.20	0.10	1.00			0.20	0.20	0.10
G, % Grade	0.00			0.00			0.00			0.00		
T3,It, Geometry Adjustment	0.00			0.00	0.00	0.00	0.00			0.00	0.00	0.00
tc, Critical Gap	4.13			7.11	6.50	6.22	4.10			7.10	6.50	6.24
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	2.20			3.50	4.00	3.30	2.20			3.50	4.00	3.30
tf,hv, Heavy Vehicles Adjustment	0.90			0.90	0.90	0.90	0.90			0.90	0.90	0.90
tf, Follow-Up Time	2.23			3.51	4.00	3.32	2.20			3.50	4.00	3.34

Delay and Level of Service by Movement												
Approach	N (Major)			E			S (Major)			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	148.24	171.76	8.24	98.82	45.88	101.18	37.65	152.94	175.29	5.88	7.06	54.12
cmx, Capacity	1225.72			241.41	275.13	798.29	1407.72			187.69	246.11	862.16
V / C	0.12			0.41	0.17	0.13	0.03			0.03	0.03	0.06
d, Delay	8.34			37.73	35.90	10.16	7.63			25.10	20.55	10.10
LOS	A			E	E	B	A			D	C	B
dA, Approach Delay	3.77			26.04			0.78			12.51		
Approach LOS				D						B		
dRank1, Rank 1 Delay	0.00						0.25					

Delay and Level of Service by Lane						
Approach	N (Major)		E		S (Major)	W
Lane	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 1
Movements	T, R1		L1, T		L1, T, R1	L1, T, R1
vx, Volume	148.24	180.00	144.71	101.18	365.88	67.06
Flared Storage Size						
cmx, Capacity			251.17		1407.72	546.12
V / C			0.58		0.26	0.12
Q95, 95% Queue Length			3.27		1.05	0.42
d, Delay			37.15		7.63	12.51
LOS			E		A	B
dA, Approach Delay	3.77		26.04		0.78	12.51
Approach LOS			D			B

Node 14118: Stanley & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.26	
Worst Case Delay	16.24	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	32.00	23.00	315.00	53.00	24.00	332.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	34.04	24.47	335.11	56.38	25.53	353.19

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	34.04	24.47			25.53	
Conflicting Volume (Veh)	767.55	363.30			391.49	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	767.55	363.30			391.49	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	368.65	686.07			1178.04	
Capacity	358.57	686.07			1178.04	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	3.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.43	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.53	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	34.04	24.47	335.11	56.38	25.53	353.19
cmx, Capacity	358.57	686.07			1178.04	
V / C	0.09	0.04			0.02	
d, Delay	16.24	11.45			8.12	
LOS	C	B			A	
dA, Approach Delay	14.24		0.00		0.55	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.22	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	58.51	391.49	378.72
Flared Storage Size			
cmx, Capacity	448.00		1178.04
V / C	0.13		0.32
Q95, 95% Queue Length	0.45		1.40
d, Delay	14.24		8.12
LOS	B		A
dA, Approach Delay	14.24	0.00	0.55
Approach LOS	B		

Node 14270: Home & King		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.62	
Worst Case Delay	28.35	
Worst Case LOS	D	

Volume and Adjustments						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	35.00	488.00	4.00	24.00	760.00	1.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	35.71	497.96	4.08	24.49	775.51	1.02

Pedestrians						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	35.71		4.08	24.49		
Conflicting Volume (Veh)	776.53		1345.41	776.02		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	776.53		1345.41	776.02		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	835.28		168.65	394.22		
Capacity	835.28		161.44	394.22		

Critical Gap and Follow Up Time						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	3.00		0.00	4.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.13		6.40	6.24		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.23		3.50	3.34		

Delay and Level of Service by Movement						
Approach	E (Major)		S		W (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	35.71	497.96	4.08	24.49	775.51	1.02
cmx, Capacity	835.28		161.44	394.22		
V / C	0.04		0.03	0.06		
d, Delay	9.50		28.35	15.18		
LOS	A		D	C		
dA, Approach Delay	0.64		17.07		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.00				0.00	

Delay and Level of Service by Lane				
Approach	E (Major)		S	W (Major)
Lane	Lane 1	Lane 2	Lane 1	Lane 1
Movements			L1, R1	T, R1
vx, Volume	35.71	497.96	28.57	776.53
Flared Storage Size				
cmx, Capacity			326.89	
V / C			0.09	
Q95, 95% Queue Length			0.29	
d, Delay			17.07	
LOS			C	
dA, Approach Delay	0.64		17.07	0.00
Approach LOS			C	

Node 14271: Home & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	7.31		
Average LOS	A		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	21.00	50.00	7.00	4.00	0.00	8.00	3.00	50.00	2.00	8.00	0.00	15.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940
Flow Rate	22.34	53.19	7.45	4.26	0.00	8.51	3.19	53.19	2.13	8.51	0.00	15.96
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
Left Turn Flow Rate	22.34	4.26	3.19	8.51
Right Turn Flow Rate	7.45	8.51	2.13	15.96
PLT, Proportion LT	0.27	0.33	0.05	0.35
PRT, Proportion RT	0.09	0.67	0.04	0.65
PHV, Proportion HV	0.00	0.00	0.00	0.00
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	0.00	-0.33	-0.01	-0.32

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
hd initial	3.20	3.20	3.20	3.20
x initial	0.07	0.01	0.05	0.02
hd, iteration 1	4.01	3.83	4.01	3.83
Difference, iteration 1	0.81	0.63	0.81	0.63
hd, iteration 2	4.03	3.89	4.04	3.89
Difference, iteration 2	0.02	0.06	0.03	0.06
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.03	3.89	4.04	3.89
x final, Degree of Utilization	0.09	0.01	0.07	0.03

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	82.98	12.77	58.51	24.47
hd, Departure Headway	4.03	3.89	4.04	3.89
x, Degree of Utilization	0.09	0.01	0.07	0.03
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.03	1.89	2.04	1.89
Capacity	892.51	924.73	889.89	924.67
Delay	7.44	6.94	7.33	7.00
LOS	A	A	A	A
Q95, 95% Queue Length				
Approach Delay	7.44	6.94	7.33	7.00
Approach LOS	A	A	A	A
Intersection Delay	7.31			
Intersection LOS	A			

Node 14275: 37th & Monroe												
Control Type				AWSC								
Method				HCM 2000								
Average Delay				15.4								
Average LOS				C								

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	71.00	22.00	44.00	225.00	1.00	63.00	119.00	151.00	16.00	165.00	166.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Flow Rate	1.10	78.02	24.18	48.35	247.25	1.10	69.23	130.77	165.93	17.58	181.32	182.42
Geometry Group	4a			2			5			2		

Saturation Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	103.30	296.70	69.23	296.70	381.32
Left Turn Flow Rate	1.10	48.35	69.23	0.00	17.58
Right Turn Flow Rate	24.18	1.10	0.00	165.93	182.42
PLT, Proportion LT	0.01	0.16	1.00	0.00	0.05
PRT, Proportion RT	0.23	0.00	0.00	0.56	0.48
PHV, Proportion HV	2.68	2.83	1.00	1.56	0.95
hLT,adj, Headway adjustm	0.20	0.20	0.50		0.20
hRT,adj, Headway adjustm	-0.60	-0.60	-0.70		-0.60
hHV,adj, Headway adjustm	1.70	1.70	1.70		1.70
hadj, Headway adjustment	-0.09	0.08	0.52	-0.36	-0.26

Departure Headway					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	103.30	296.70	69.23	296.70	381.32
hd initial	3.20	3.20	3.20	3.20	3.20
x initial	0.09	0.26	0.06	0.26	0.34
hd, iteration 1	5.39	5.07	6.23	5.34	4.65
Difference, iteration 1	2.19	1.87	3.03	2.14	1.45
hd, iteration 2	6.27	5.77	6.85	5.96	5.34
Difference, iteration 2	0.88	0.70	0.63	0.62	0.69
hd, iteration 3	6.63	6.03	7.12	6.22	5.57
Difference, iteration 3	0.36	0.25	0.27	0.26	0.23
hd, iteration 4	6.76	6.12	7.22	6.32	5.66
Difference, iteration 4	0.13	0.10	0.09	0.09	0.09
hd, iteration 5	6.81	6.16	7.25	6.35	5.69
Difference, iteration 5	0.05	0.04	0.04	0.04	0.03
Convergence	Y	Y	Y	Y	Y
hd final, Departure Headwa	6.81	6.16	7.25	6.35	5.69
x final, Degree of Utilizatio	0.20	0.51	0.14	0.52	0.60

Capacity and Level of Service					
Approach	N	E	S		W
Lanes	Lane 1	Lane 1	Lane 1	Lane 2	Lane 1
Total Lane Flow Rate	103.30	296.70	69.23	296.70	381.32
hd, Departure Headway	6.81	6.16	7.25	6.35	5.69
x, Degree of Utilization	0.20	0.51	0.14	0.52	0.60
m, Move Up Time	2.00	2.00	2.30	2.30	2.00
ts, Service Time	4.81	4.16	4.95	4.05	3.69
Capacity	528.39	584.13	496.11	566.17	632.30
Delay	11.45	15.34	11.12	15.82	16.96
LOS	B	C	B	C	C
Q95, 95% Queue Length					
Approach Delay	11.45	15.34	14.93		16.96
Approach LOS	B	C	B		C
Intersection Delay	15.4				
Intersection LOS	C				

Node 14276: 37th & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dI, Average Delay	6.67	
Worst Case Delay	29.06	
Worst Case LOS	D	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	158.00	146.00	136.00	133.00	257.00	203.00
PHF, Peak-hour factor	0.980	0.980	0.980	0.980	0.980	0.980
V, Adjusted Volume	161.22	148.98	138.78	135.71	262.24	207.14

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	161.22		138.78	135.71		
Conflicting Volume (Veh)	469.39		837.24	365.82		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	469.39		837.24	365.82		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1102.85		339.35	681.59		
Capacity	1102.85		284.97	681.59		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	1.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.21		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.31		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	161.22	148.98	138.78	135.71	262.24	207.14
cmx, Capacity	1102.85		284.97	681.59		
V / C	0.15		0.49	0.20		
d, Delay	8.82		29.06	11.59		
LOS	A		D	B		
dA, Approach Delay	4.59		20.42		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	1.41				0.00	

Delay and Level of Service by Lane				
Approach	N (Major)	E		S (Major)
Lane	Lane 1	Lane 1	Lane 2	Lane 1
Movements	L1, T			T, R1
vx, Volume	310.20	138.78	135.71	469.39
Flared Storage Size				
cmx, Capacity	1102.85			
V / C	0.28			
Q95, 95% Queue Length	1.16			
d, Delay	8.82			
LOS	A			
dA, Approach Delay	4.59	20.42		0.00
Approach LOS		C		

Node 14277: Home & Railroad		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.34	
Worst Case Delay	15.84	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	41.00	22.00	290.00	32.00	9.00	334.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	46.07	24.72	325.84	35.96	10.11	375.28

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	46.07	24.72			10.11	
Conflicting Volume (Veh)	739.33	343.82			361.80	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	739.33	343.82			361.80	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	387.43	703.51			1207.97	
Capacity	383.27	703.51			1207.97	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adj	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	0.00			0.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.20			4.10	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.30			2.20	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	46.07	24.72	325.84	35.96	10.11	375.28
cmx, Capacity	383.27	703.51			1207.97	
V / C	0.12	0.04			0.01	
d, Delay	15.84	11.56			8.01	
LOS	C	B			A	
dA, Approach Delay	14.35		0.00		0.21	
Approach LOS	B					
dRank1, Rank 1 Delay			0.00		0.09	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	70.79	361.80	385.39
Flared Storage Size			
cmx, Capacity	455.70		1207.97
V / C	0.16		0.32
Q95, 95% Queue Length	0.55		1.39
d, Delay	14.35		8.01
LOS	B		A
dA, Approach Delay	14.35	0.00	0.21
Approach LOS	B		

Node 14289: Harrison St & 32nd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		10.72	
Average LOS		B	
V/C		0.63	
Loss Time		8	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	136	130	188	0	231	19	0	105	21	115	434	5
PHF, Peak-hour factor	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930	0.930
Peak 15 Volume	37	35	51	0	62	5	0	28	6	31	117	1
Adjusted Volume	146	140	202	0	248	20	0	113	23	124	467	5

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	30175	30176	30173	30174	30179	30180	30177	30178
Lanes	LT	R	L	RT	T	R	L	RT
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	286	202	0	269	113	23	124	472
PLT, Proportion Left Turns	0.51	0.00	0.00	0.00	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.08	0.00	1.00	0.00	0.01

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	30175	30176	30173	30174	30179	30180	30177	30178
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	2.000	3.000	0.000	2.000	1.000	0.000	8.000	2.000
fHV, HV Adjustment	0.980	0.971	1.000	0.980	0.990	1.000	0.926	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.821	1.000	0.438	1.000	1.000	1.000	0.627	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.989	1.000	0.850	1.000	0.998
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1449	1485	789	1745	1782	1530	1045	1762

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	30175	30176	30173	30174	30179	30180	30177	30178
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
V, Volume	286.02	202.15	0	268.82	112.9	22.58	123.66	472.04
s, Saturation Flow Rate	1449	1485	789	1745	1782	1530	1045	1762
c, Capacity	435	446	342	756	535	459	453	763
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
X, Volume / Capacity	0.66	0.45	0	0.36	0.21	0.05	0.27	0.62
d1, Uniform Delay	9.16	8.51	4.82	5.69	7.85	7.46	5.46	6.58
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	7.58	3.31	0.00	1.31	0.90	0.20	1.49	3.74
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	16.74	11.82	4.82	7.00	8.75	7.66	6.95	10.32
LOS	B	B	A	A	A	A	A	B
dA, Approach Delay	14.70		7.00		8.57		9.62	
Approach LOS	B		A		A		A	
dI, Intersection Delay	10.72							
Intersection LOS	B							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	30175	30176	30173	30174	30179	30180	30177	30178
g/C, Green / Cycle	0.30	0.30	0.43	0.43	0.30	0.30	0.43	0.43
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	2.08	1.36	0.00	1.50	0.70	0.13	0.66	3.04
Q2, Second-term Queued	0.55	0.25	0.00	0.24	0.09	0.02	0.11	0.70
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.30	0.30	0.25	0.44	0.34	0.31	0.30	0.44
Q, Average Back of Queue	2.63	1.61	0.00	1.74	0.79	0.15	0.78	3.74
fB%, % Factor	1.80	1.86	2.00	1.85	1.93	1.99	1.93	1.74
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	4.72	3.00	0.00	3.22	1.53	0.30	1.50	6.50

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	30175	30176	30173	30174	30179	30180	30177	30178
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Green Time Start	0	0	13	13	0	0	13	13
Green Time End	9	9	26	26	9	9	26	26
G, Actual Green Time	9	9	13	13	9	9	13	13
gi, Effective Green Time	9	9	13	13	9	9	13	13
g/C, Green / Cycle	0.3	0.3	0.43	0.43	0.3	0.3	0.43	0.43
(v/s)i, Volume / Saturation	0.20	0.14	0.00	0.15	0.06	0.01	0.12	0.27
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	30175	30176	30173	30174	30179	30180	30177	30178
Control Type	Perm	No Left	Perm	No Left	No Left	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S				S	
Opposed by Single(S) or M	M		M				M	
C, Cycle Length	30.00		30.00				30.00	
G(s), Actual GT	9.00		13.00				13.00	
g(s), Eff. perm. GT	9.00		13.00				13.00	
go(s), Opposing Eff. GT	9.00		13.00				13.00	
No, Number Lanes in Opp	1		1				1	
N, Number Left Lanes	1.00		1.00				1.00	
VLT, Adj. LT Flow Rate	146.24		0.00				123.66	
PLT, Proportion LT in Lane	0.51		0.00				1.00	
PLTo, Proportion LT in Op	0.00		0.00				0.00	
LT Volume per Cycle	1.22		0.00				1.03	
Vo, Opposing Flow	112.90		472.04				268.82	
Volc, Adjusted Opposing F	0.99		3.93				2.24	
FLUo, Opposing Lane Utili	0.95		1.00				1.00	
Rpo, Opposing Platoon Ra	1.00		1.00				1.00	
gf	0.00		0.00				0.00	
qro, Opposing Queue Rati	0.70		0.57				0.57	
gq, Opposing Queue Clear	0.00		2.04				0.00	
gu	9.00		10.96				13.00	
PL	0.51		1.00				1.00	
de facto caused by PL >=								
EL1	1.43		1.92				1.60	
EL2	0.00		0.00				0.00	
gdif	0.00		0.00				0.00	
fm	0.82		0.44				0.63	
fLT, Left Turn Adjustment	0.82	1.00	0.44	1.00	1.00	1.00	0.63	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zo	0.00		0.00	0.00		0.02	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14291: 42nd & Harrison

Control Type	Signalized
Method	HCM 2000
Average Delay	16.61
Average LOS	B
V/C	0.31
Loss Time	14

Volume and Adjustments by Movement

Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	13	224	154	58	0	10	4	268	24	512	69	0
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	3	59	41	15	0	3	1	71	6	135	18	0
Adjusted Volume	14	236	162	61	0	11	4	282	25	539	73	0

Volume and Adjustments by Lane Group

Approach	N			E			S	W	
Lane Group	C	R	R	L	L	C	C	L	C
ID	30184	30185	30186	30181	30182	30183	30190	30187	30189
Lanes	LT	R	R	L	L	RT	LTR	L	T
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm	No Left
V, Volume	249	122	41	34	27	11	312	539	73
PLT, Proportion Left Turns	0.05	0.00	0.00	1.00	1.00	0.00	0.01	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	1.00	0.00	0.00	1.00	0.08	0.00	0.00

Saturation Flow Rate

Approach	N			E			S	W		
Lane Group	30184	30185	30186	30181	30182	30183	30190	30187		30189
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
so, Base Saturation Flow Factor	1800	1800	1800	1800	1800	1800	1800	1800		1800
N, Number of Lanes	1	1	1	1	1	1	1	1		1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Phv, % Heavy Vehicles	0.000	3.000	3.000	0.000	0.000	3.000	1.000	2.000		0.000
fHV, HV Adjustment	1.000	0.971	0.971	1.000	1.000	0.971	0.990	0.980		1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fbb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fLT, Left Turn Adjustment	0.978	1.000	1.000	0.950	0.749	1.000	0.996	0.950	0.792	1.000
fRT, Right Turn Adjustment	1.000	0.850	0.850	1.000	1.000	0.850	0.989	1.000		1.000
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000
Has Short Lane										
s, Saturation Flow Rate	1761	1485	1485	1710	1348	1485	1756	1676	1398	1800

Capacity, Control Delay, and Level of Service Determination

Approach	N			E			S	W		
Lane Group	30184	30185	30186	30181	30182	30183	30190	30187		30189
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
V, Volume	249.47	121.58	40.53	33.58	27.47	10.53	311.58	335	204	72.63
s, Saturation Flow Rate	1761	1485	1485	1710	1348	1485	1756	1676	1398	1800
								1506		
c, Capacity	558	470	248	114	382	421	556	335	443	690
								778		
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
X, Volume / Capacity	0.45	0.26	0.16	0.29	0.07	0.03	0.56	1.00	0.46	0.11
								0.69		
d1, Uniform Delay	16.32	11.44	5.35	14.66	7.08	15.52	17.03	10.35		11.89
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		0.50
d2, Incremental Delay,	2.59	1.33	1.42	6.46	0.36	0.11	4.04	5.03		0.31
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
P, Proportion Arriving on G	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20		0.38
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00
d, Delay	18.91	12.77	6.77	21.12	7.44	15.63	21.07	15.38		12.19
LOS	B	B	A	C	A	B	C	B		B
dA, Approach Delay	15.90			15.06			21.07	15.00		
Approach LOS	B			B			C	B		
dI, Intersection Delay	16.61									
Intersection LOS	B									

Back of Queue

[illegible]

kB, Early Arrival Adj. Factor	0.57	0.51	0.32	0.19	0.44	0.47	0.57	0.72	0.66
Q, Average Back of Queue	3.77	1.68	0.64	0.61	0.37	0.14	5.02	8.31	0.86
fB%, % Factor	1.74	1.86	1.94	1.94	1.96	1.99	1.68	1.59	1.92
Q%, Back of Queue Percentage	90	90	90	90	90	90	90	90	90
% Back of Queue	6.54	3.13	1.25	1.19	0.72	0.28	8.46	13.25	1.64

Signal Timing Information										
Approach	N			E			S	W		
Lane Group	30184	30185	30186	30181	30182	30183	30190	30187		30189
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Signal Type	P	P	P	P	P	P	P	P		P
C, Cycle Length	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00		60.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0		0
L, Total Loss Time per Cyc	5.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00		5.00
I1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2	0	2.00
I1p, Permitted Start Up Los	2.00	0.00	0.00	0.00	2.00	0.00	2.00	0	0	0.00
I2, Clearance Loss Time	3.00	3.00	2.00	2.00	3.00	3.00	3.00	0	3	3.00
Green Time Start	0	0	24	24	38	38	0	24	38	32
Green Time End	19	19	34	28	55	55	19	38	55	55
G, Actual Green Time	19	19	10	4	17	17	19	14	17	23
gi, Effective Green Time	19	19	10	4	17	17	19	12	19	23
g/C, Green / Cycle	0.32	0.32	0.17	0.07	0.28	0.28	0.32	0.20	0.32	0.38
								0.52		
(v/s)i, Volume / Saturation	0.14	0.08	0.03	0.02	0.02	0.01	0.18	0.20	0.15	0.04
Critical Lane Group				Y			Y			Y

Left Turn Adjustment Factors for Permitted Phasing										
Approach	N			E			S	W		
Lane Group	30184	30185	30186	30181	30182	30183	30190	30187	30189	
Control Type	Perm	No Left	No Left	Prot	Perm	No Left	Perm	Prot/Perm		No Left
								Prot	Perm	
Subject is Single(S) or Multiple(M)	S				S		S		S	
Opposed by Single(S) or Multiple(M)	S				M		M		M	
C, Cycle Length	60.00				60.00		60.00		60.00	
G(s), Actual GT	19.00				17.00		19.00		17.00	
g(s), Eff. perm. GT	19.00				17.00		19.00		19.00	
go(s), Opposing Eff. GT	19.00				23.00		19.00		17.00	
No, Number Lanes in Opposing Flow	1				1		1		1	
N, Number Left Lanes	1.00				1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	13.68				61.05		4.21		538.95	
PLT, Proportion LT in Lane	0.05				1.00		0.01		1.00	
PLTo, Proportion LT in Opposing Flow	0.01				0.00		0.03		0.00	
LT Volume per Cycle	0.23				1.02		0.07		8.98	
Vo, Opposing Flow	311.58				72.63		249.47		10.53	
Volc, Adjusted Opposing Flow	5.19				1.21		4.37		0.18	
FLUo, Opposing Lane Utilization	1.00				1.00		0.95		1.00	
Rpo, Opposing Platoon Ratio	1.00				1.00		1.00		1.00	
gf	8.53				0.00		11.16		0.00	
qro, Opposing Queue Ratio	0.68				0.62		0.68		0.72	
gq, Opposing Queue Clearance	6.58				0.00		1.99		0.00	
gu	10.47				17.00		7.84		19.00	
PL	0.05				1.00		0.01		1.00	
de facto caused by PL >= 0.05										
EL1	1.75				1.33		1.66		1.26	
EL2	0.00				0.00		0.00		0.00	
gdifff	0.00				0.00		0.00		0.00	
fm	0.98				0.75		1.00		0.79	
fLT, Left Turn Adjustment	0.98	1.00	1.00	0.95	0.75	1.00	1.00	0.95	0.79	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Zone	0.00		0.02	0.00		0.02	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 14294: RR Ave & Harmony Rd & Linwood Ave												
Control Type				Signalized								
Method				HCM 2000								
Average Delay				63.41								
Average LOS				E								
V/C				0.99								
Loss Time				18								

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	137	250	21	358	328	68	36	235	417	38	305	36
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Peak 15 Volume	35	64	5	92	85	18	9	61	107	10	79	9
Adjusted Volume	141	258	22	369	338	70	37	242	430	39	314	37

Volume and Adjustments by Lane Group									
Approach	N		E		S			W	
Lane Group	L	C	L	C	C	R	R	L	C
ID	30193	30194	30191	30192	30197	30198	30199	30195	30196
Lanes	L	RT	L	RT	LT	R	R	L	RT
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	141	279	369	408	279	115	315	39	352
PLT, Proportion Left Turns	1.00	0.00	1.00	0.00	0.13	0.00	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	0.08	0.00	0.17	0.00	1.00	1.00	0.00	0.11

Saturation Flow Rate									
Approach	N		E		S			W	
Lane Group	30193	30194	30191	30192	30197	30198	30199	30195	30196
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
so, Base Saturation Flow F	1800	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	1.000	5.000	2.000	1.000	2.000	1.000	1.000	0.000	0.000
fHV, HV Adjustment	0.990	0.952	0.980	0.990	0.980	0.990	0.990	1.000	1.000
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.950	1.000	0.950	1.000	0.993	1.000	1.000	0.950	1.000
fRT, Right Turn Adjustment	1.000	0.988	1.000	0.974	1.000	0.850	0.850	1.000	0.984
fLpb, Left Turn Ped. Adjust	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adj	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane									
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1771

Capacity, Control Delay, and Level of Service Determination									
Approach	N		E		S			W	
Lane Group	30193	30194	30191	30192	30197	30198	30199	30195	30196
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
V, Volume	141.24	279.38	369.07	408.25	279.38	114.64	315.26	39.18	351.55
s, Saturation Flow Rate	1693	1694	1676	1736	1753	1515	1515	1710	1771
c, Capacity	282	282	373	714	331	337	286	57	394
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
X, Volume / Capacity	0.5	0.99	0.99	0.57	0.84	0.34	1.1	0.69	0.89
d1, Uniform Delay	34.09	37.42	34.91	20.40	35.22	7.85	26.77	43.04	33.96
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	6.22	50.92	44.36	3.31	22.28	2.74	83.26	50.95	25.09
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	40.31	88.35	79.26	23.72	57.50	10.59	110.02	93.99	59.05
LOS	D	F	E	C	E	B	F	F	E
dA, Approach Delay	72.22		50.09		73.26			62.55	
Approach LOS	E		D		E			E	
dI, Intersection Delay	63.41								
Intersection LOS	E								

Back of Queue									
Approach	N		E		S			W	
Arrival Type	3		3		3			3	
Lane Group	30193	30194	30191	30192	30197	30198	30199	30195	30196
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	3.21	6.97	9.20	7.86	6.74	2.41	7.88	0.97	8.53
Q2, Second-term Queued	0.46	3.87	4.93	1.17	2.14	0.27	6.52	0.30	3.12
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Facto	0.47	0.47	0.57	0.90	0.53	0.53	0.48	0.15	0.59
Q, Average Back of Queue	3.67	10.84	14.13	9.03	8.88	2.68	14.40	1.27	11.65
fB%, % Factor	1.74	1.56	1.53	1.58	1.58	1.79	1.53	1.89	1.55
Q%, Back of Queue Perce	90	90	90	90	90	90	90	90	90
% Back of Queue	6.39	16.88	21.61	14.28	14.07	4.81	22.00	2.39	18.04

Signal Timing Information									
Approach	N		E		S			W	
Lane Group	30193	30194	30191	30192	30197	30198	30199	30195	30196
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Signal Type	P	P	P	P	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00
Green Time Start	49	49	0	7	69	0	69	0	24
Green Time End	64	64	20	44	86	20	86	3	44
G, Actual Green Time	15	15	20	37	17	20	17	3	20
gi, Effective Green Time	15	15	20	37	17	20	17	3	20
g/C, Green / Cycle	0.17	0.17	0.22	0.41	0.19	0.22	0.19	0.03	0.22
(v/s)i, Volume / Saturation	0.08	0.16	0.22	0.24	0.16	0.08	0.21	0.02	0.20
Critical Lane Group		Y	Y				Y		Y

Left Turn Adjustment Factors for Permitted Phasing									
Approach	N		E		S			W	
Lane Group	30193	30194	30191	30192	30197	30198	30199	30195	30196
Control Type	Split	No Left	Prot	No Left	Prot	No Left	No Left	Prot	No Left
Subject is Single(S) or Mul									
Opposed by Single(S) or M									
C, Cycle Length									
G(s), Actual GT									
g(s), Eff. perm. GT									
go(s), Opposing Eff. GT									
No, Number Lanes in Opp									
N, Number Left Lanes									
VLT, Adj. LT Flow Rate									
PLT, Proportion LT in Lane									
PLTo, Proportion LT in Op									
LT Volume per Cycle									
Vo, Opposing Flow									
Volc, Adjusted Opposing F									
FLUo, Opposing Lane Utili									
Rpo, Opposing Platoon Ra									
gf									
qro, Opposing Queue Rati									
gq, Opposing Queue Clear									
gu									
PL									
de facto caused by PL >=									
EL1									
EL2									
gdif									
fm									
fLT, Left Turn Adjustment	0.95	1.00	0.95	1.00	0.99	1.00	1.00	0.95	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.02	0.00		0.00	0.00		0.03	0.00		0.02
ApbT, Adjustment Factor	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15122: Oak & Railroad & Monroe				
		Control Type	Signalized	
		Method	HCM 2000	
		Average Delay	35.23	
		Average LOS	D	
		V/C	0.53	
		Loss Time	10	

Volume and Adjustments by Movement									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
Base Volume	0	0	0	316	0	144	238	81	73
PHF, Peak-hour factor	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
Peak 15 Volume	0	0	0	86	0	39	65	22	20
Adjusted Volume	0	0	0	343	0	157	259	88	79

Volume and Adjustments by Lane Group					
Approach	N	E	S		W
Lane Group	C	L	L	R	C
ID	30206	30205	30208	30209	30207
Lanes	LTR	L	L	R	RT
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	343	157	259	167
PLT, Proportion Left Turns	0.00	1.00	1.00	0.00	0.00
PRT, Proportion Right Turns	0.00	0.00	0.00	1.00	0.47

Saturation Flow Rate					
Approach	N	E	S		W
Lane Group	30206	30205	30208	30209	30207
Control Type	Perm	Perm	Perm	No Left	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	3.000	1.000	0.000	1.000
fHV, HV Adjustment	1.000	0.971	0.990	1.000	0.990
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	1.000	0.654	0.799	1.000	1.000
fRT, Right Turn Adjustment	1.000	1.000	1.000	0.850	0.936
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000
Has Short Lane					
s, Saturation Flow Rate	1800	1143	1424	1530	1668

Capacity, Control Delay, and Level of Service Determination					
Approach	N	E	S		W
Lane Group	30206	30205	30208	30209	30207
Control Type	Perm	Perm	Perm	No Left	No Left
V, Volume	0	343.48	156.52	258.7	167.39
s, Saturation Flow Rate	1800	1143	1424	1530	1668
c, Capacity	1040	356	823	884	519
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
X, Volume / Capacity	0	0.97	0.19	0.29	0.32
d1, Uniform Delay	8.02	30.53	9.01	9.65	23.74
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	0.00	39.84	0.51	0.84	1.64
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.58	0.31	0.58	0.58	0.31
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00
d, Delay	8.02	70.37	9.53	10.49	25.38
LOS	A	E	A	B	C
dA, Approach Delay	8.02	70.37	10.13		25.38
Approach LOS	A	E	B		C
dI, Intersection Delay	35.23				
Intersection LOS	D				

Back of Queue					
Approach	N	E	S		W
Arrival Type	3	3	3		3
Lane Group	30206	30205	30208	30209	30207
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.00	8.46	1.86	3.29	3.20
Q2, Second-term Queued	0.00	4.18	0.23	0.43	0.34
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	1.17	0.55	1.00	1.05	0.72
Q, Average Back of Queue	0.00	12.63	2.09	3.72	3.55
fB%, % Factor	2.00	1.54	1.83	1.74	1.75
Q%, Back of Queue Percent	90	90	90	90	90
% Back of Queue	0.00	19.45	3.82	6.46	6.19

Signal Timing Information					
Approach	N	E	S		W
Lane Group	30206	30205	30208	30209	30207
Control Type	Perm	Perm	Perm	No Left	No Left
Signal Type	P	P	P	P	P
C, Cycle Length	90.00	90.00	90.00	90.00	90.00
Gp, Minimum Pedestrian T	0	0	0	0	0
L, Total Loss Time per Cyc	5.00	5.00	5.00	5.00	5.00
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	2.00	2.00	0.00	0.00
l2, Clearance Loss Time	3.00	3.00	3.00	3.00	3.00
Green Time Start	0	57	0	0	57
Green Time End	52	85	52	52	85
G, Actual Green Time	52	28	52	52	28
gi, Effective Green Time	52	28	52	52	28
g/C, Green / Cycle	0.58	0.31	0.58	0.58	0.31
(v/s)i, Volume / Saturation	0.00	0.30	0.11	0.17	0.10
Critical Lane Group		Y		Y	

Left Turn Adjustment Factors for Permitted Phasing					
Approach	N	E	S		W
Lane Group	30206	30205	30208	30209	30207
Control Type	Perm	Perm	Perm	No Left	No Left
Subject is Single(S) or Mul	S	S	S		
Opposed by Single(S) or M	M	M	S		
C, Cycle Length	90.00	90.00	90.00		
G(s), Actual GT	52.00	28.00	52.00		
g(s), Eff. perm. GT	52.00	28.00	52.00		
go(s), Opposing Eff. GT	52.00	28.00	52.00		
No, Number Lanes in Opp	0	1	1		
N, Number Left Lanes	1.00	1.00	1.00		
VLT, Adj. LT Flow Rate	0.00	343.48	156.52		
PLT, Proportion LT in Lane	0.00	1.00	1.00		
PLTo, Proportion LT in Op	0.38	0.00	0.00		
LT Volume per Cycle	0.00	8.59	3.91		
Vo, Opposing Flow	0.00	167.39	0.00		
Volc, Adjusted Opposing F	0.00	4.18	0.00		
FLUo, Opposing Lane Utili	0.95	1.00	1.00		
Rpo, Opposing Platoon Ra	1.00	1.00	1.00		
gf	47.00	0.00	0.00		
qro, Opposing Queue Rati	0.42	0.69	0.42		
gq, Opposing Queue Clear	0.00	1.36	0.00		
gu	5.00	26.64	52.00		
PL	0.00	1.00	1.00		
de facto caused by PL >=		Y			
EL1	1.25	1.45	1.25		
EL2	0.00	0.00	0.00		
gdiff	0.00	0.00	0.00		
fm	1.00	0.65	0.80		
fLT, Left Turn Adjustment	1.00	0.65	0.80	1.00	1.00

Pedestrian and Bicycle Adjustment Factors									
Approach	N			E		S		W	
Movement	L1	T	R1	L1	T	L1	R1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.02		0.02
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	0.98		0.98
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 15123: King Rd & 43rd Ave			
Control Type		Signalized	
Method		HCM 2000	
Average Delay		8.64	
Average LOS		A	
V/C		0.6	
Loss Time		9	

Volume and Adjustments by Movement												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	71	31	40	53	377	44	12	37	74	78	617	13
PHF, Peak-hour factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Peak 15 Volume	19	8	11	14	99	12	3	10	19	21	162	3
Adjusted Volume	75	33	42	56	397	46	13	39	78	82	649	14

Volume and Adjustments by Lane Group								
Approach	N		E		S		W	
Lane Group	C	R	L	C	C	R	L	C
ID	30212	30213	30210	30211	30216	30217	30214	30215
Lanes	LT	R	L	RT	LT	R	L	RT
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107	42	56	443	52	78	82	663
PLT, Proportion Left Turns	0.70	0.00	1.00	0.00	0.24	0.00	1.00	0.00
PRT, Proportion Right Turns	0.00	1.00	0.00	0.10	0.00	1.00	0.00	0.02

Saturation Flow Rate								
Approach	N		E		S		W	
Lane Group	30212	30213	30210	30211	30216	30217	30214	30215
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
so, Base Saturation Flow Rate	1800	1800	1800	1800	1800	1800	1800	1800
N, Number of Lanes	1	1	1	1	1	1	1	1
fw, Lane Width Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Phv, % Heavy Vehicles	0.000	0.000	2.000	4.000	0.000	0.000	0.000	2.000
fHV, HV Adjustment	1.000	1.000	0.980	0.962	1.000	1.000	1.000	0.980
fg, Grade Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fp, Parking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fb, Bus Blocking Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fa, Area Type Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU, Lane Utilization Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLT, Left Turn Adjustment	0.814	1.000	0.348	1.000	0.911	1.000	0.524	1.000
fRT, Right Turn Adjustment	1.000	0.850	1.000	0.984	1.000	0.850	1.000	0.997
fLpb, Left Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fRpb, Right Turn Ped. Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Has Short Lane								
s, Saturation Flow Rate	1465	1530	613	1704	1640	1530	943	1759

Capacity, Control Delay, and Level of Service Determination								
Approach	N		E		S		W	
Lane Group	30212	30213	30210	30211	30216	30217	30214	30215
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
V, Volume	107.37	42.11	55.79	443.16	51.58	77.89	82.11	663.16
s, Saturation Flow Rate	1465	1530	613	1704	1640	1530	943	1759
c, Capacity	244	255	358	994	273	255	550	1026
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
X, Volume / Capacity	0.44	0.17	0.16	0.45	0.19	0.31	0.15	0.65
d1, Uniform Delay	13.49	12.85	3.44	4.22	12.91	13.17	3.42	5.02
k, Delay Calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
d2, Incremental Delay,	5.65	1.39	0.93	1.45	1.52	3.07	0.57	3.14
d3, Initial Queue Delay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P, Proportion Arriving on G	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d, Delay	19.14	14.24	4.36	5.67	14.43	16.24	4.00	8.16
LOS	B	B	A	A	B	B	A	A
dA, Approach Delay	17.76		5.53		15.52		7.70	
Approach LOS	B		A		B		A	
dI, Intersection Delay	8.64							
Intersection LOS	A							

Back of Queue								
Approach	N		E		S		W	
Arrival Type	3		3		3		3	
Lane Group	30212	30213	30210	30211	30216	30217	30214	30215
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
PF2, Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1, First-term Queued	0.97	0.36	0.26	2.50	0.44	0.68	0.37	4.43
Q2, Second-term Queued	0.17	0.05	0.05	0.48	0.06	0.10	0.07	1.09
XU, Upstream V/C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
I, Upstream Adj. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
kB, Early Arrival Adj. Factor	0.22	0.23	0.29	0.60	0.24	0.23	0.40	0.61
Q, Average Back of Queue	1.14	0.41	0.31	2.97	0.50	0.79	0.44	5.53
fB%, % Factor	1.90	1.96	1.97	1.78	1.95	1.93	1.96	1.67
Q%, Back of Queue Percent	90	90	90	90	90	90	90	90
% Back of Queue	2.16	0.80	0.61	5.28	0.98	1.51	0.87	9.21

Signal Timing Information								
Approach	N		E		S		W	
Lane Group	30212	30213	30210	30211	30216	30217	30214	30215
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Signal Type	P	P	P	P	P	P	P	P
C, Cycle Length	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Gp, Minimum Pedestrian T	0	0	0	0	0	0	0	0
L, Total Loss Time per Cyc	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
l1, Start Up Loss Time	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
l1p, Permitted Start Up Los	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Loss Time	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Green Time Start	25.5	25.5	0	0	25.5	25.5	0	0
Green Time End	31.5	31.5	21	21	31.5	31.5	21	21
G, Actual Green Time	6	6	21	21	6	6	21	21
gi, Effective Green Time	6	6	21	21	6	6	21	21
g/C, Green / Cycle	0.17	0.17	0.58	0.58	0.17	0.17	0.58	0.58
(v/s)i, Volume / Saturation	0.07	0.03	0.09	0.26	0.03	0.05	0.09	0.38
Critical Lane Group	Y							Y

Left Turn Adjustment Factors for Permitted Phasing								
Approach	N		E		S		W	
Lane Group	30212	30213	30210	30211	30216	30217	30214	30215
Control Type	Perm	No Left	Perm	No Left	Perm	No Left	Perm	No Left
Subject is Single(S) or Mul	S		S		S		S	
Opposed by Single(S) or M	M		M		M		M	
C, Cycle Length	36.00		36.00		36.00		36.00	
G(s), Actual GT	6.00		21.00		6.00		21.00	
g(s), Eff. perm. GT	6.00		21.00		6.00		21.00	
go(s), Opposing Eff. GT	6.00		21.00		6.00		21.00	
No, Number Lanes in Opp	1		1		1		1	
N, Number Left Lanes	1.00		1.00		1.00		1.00	
VLT, Adj. LT Flow Rate	74.74		55.79		12.63		82.11	
PLT, Proportion LT in Lane	0.70		1.00		0.24		1.00	
PLTo, Proportion LT in Op	0.10		0.00		0.50		0.00	
LT Volume per Cycle	0.75		0.56		0.13		0.82	
Vo, Opposing Flow	51.58		663.16		107.37		443.16	
Volc, Adjusted Opposing F	0.54		6.63		1.13		4.43	
FLUo, Opposing Lane Utili	0.95		1.00		0.95		1.00	
Rpo, Opposing Platoon Ra	1.00		1.00		1.00		1.00	
gf	0.00		0.00		0.25		0.00	
qro, Opposing Queue Rati	0.83		0.42		0.83		0.42	
gq, Opposing Queue Clear	0.00		4.25		0.00		0.40	
gu	6.00		16.75		5.75		20.60	
PL	0.70		1.00		0.24		1.00	
de facto caused by PL >=								
EL1	1.33		2.29		1.42		1.87	
EL2	0.00		0.00		0.00		0.00	
gdifff	0.00		0.00		0.00		0.00	
fm	0.81		0.35		0.91		0.52	
fLT, Left Turn Adjustment	0.81	1.00	0.35	1.00	0.91	1.00	0.52	1.00

Pedestrian and Bicycle Adjustment Factors												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
gp, Pedestrian Green	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCpedg, Average Pedes	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
OCCr, Relevant Conflict Z	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
ApbT, Adjustment Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fRpb, Right Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
fLpb, Left Turn Factor	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00

Actuated Phase Properties

Actuated Lane Group Properties

Pedestrian and Bicycle Analysis

Node 50107: 37th & Harrison												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				3.88								
Worst Case Delay				25.65								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	1.00	19.00	6.00	32.00	177.00	0.00	16.00	69.00	40.00	11.00	518.00	33.00
PHF, Peak-hour factor	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
V, Adjusted Volume	1.03	19.59	6.19	32.99	182.47	0.00	16.49	71.13	41.24	11.34	534.02	34.02

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	1.03	19.59	6.19	32.99			16.49	71.13	41.24	11.34		
Conflicting Volume (Veh)	878.35	839.18	182.47	568.04			835.05	822.16	551.03	182.47		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	878.35	839.18	182.47	568.04			835.05	822.16	551.03	182.47		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	270.53	295.32	865.21	979.70			280.32	311.11	537.92	1404.80		
Capacity	196.12	280.74	865.21	979.70			253.64	295.75	537.92	1404.80		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	8.00	0.00	7.00			8.00	0.00	0.00	0.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.58	6.20	4.17			7.18	6.50	6.20	4.10		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.07	3.30	2.26			3.57	4.00	3.30	2.20		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	1.03	19.59	6.19	32.99	182.47	0.00	16.49	71.13	41.24	11.34	534.02	34.02
cmx, Capacity	196.12	280.74	865.21	979.70			253.64	295.75	537.92	1404.80		
V / C	0.01	0.07	0.01	0.03			0.07	0.24	0.08	0.01		
d, Delay	24.34	18.81	10.15	8.80			25.65	23.63	18.15	7.58		
LOS	C	C	B	A			D	C	C	A		
dA, Approach Delay	17.02			1.35			22.13			0.15		
Approach LOS	C						C					
dRank1, Rank 1 Delay				0.33						0.09		

Delay and Level of Service by Lane				
Approach	N	E (Major)	S	W (Major)
Lane	Lane 1	Lane 1	Lane 1	Lane 1
Movements	L1, T, R1	L1, T, R1	L1, T, R1	L1, T, R1
vx, Volume	26.80	215.46	128.87	579.38
Flared Storage Size				
cmx, Capacity	326.17	979.70	337.16	1404.80
V / C	0.08	0.22	0.38	0.41
Q95, 95% Queue Length	0.27	0.84	1.74	2.06
d, Delay	17.02	8.80	22.13	7.58
LOS	C	A	C	A
dA, Approach Delay	17.02	1.35	22.13	0.15
Approach LOS	C		C	

Node 50122: 66th & King												
Control Type				TWSC								
Method				HCM 2000								
dI, Average Delay				0.81								
Worst Case Delay				34.56								
Worst Case LOS				D								

Volume and Adjustments												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	4.00	3.00	5.00	23.00	479.00	9.00	11.00	0.00	0.00	10.00	616.00	19.00
PHF, Peak-hour factor	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910	0.910
V, Adjusted Volume	4.40	3.30	5.49	25.27	526.37	9.89	12.09	0.00	0.00	10.99	676.92	20.88

Pedestrians												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Flow (Ped/hr)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
w, Lane Width (ft)	12.00	12.00	12.00	12.00			12.00	12.00	12.00	12.00		
Sp, Walking Speed (ft/s)	4.00	4.00	4.00	4.00			4.00	4.00	4.00	4.00		
fpb, Percent Blockage	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		

Capacity of Movements below Rank 1												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Rank	4	3	2	2	1	1	4	3	2	2	1	1
vx, Volume	4.40	3.30	5.49	25.27			12.09	0.00	0.00	10.99		
Conflicting Volume (Veh)	1280.77	1301.65	531.32	697.80			1290.66	1296.15	687.36	536.26		
Conflicting Volume (Ped)	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
Conflicting Volume	1280.77	1301.65	531.32	697.80			1290.66	1296.15	687.36	536.26		
Two-Stage Gap Acceptance	No	No					No	No				
Number of Storage Spaces												
cpx, Potential Capacity	143.85	162.33	551.90	880.20			141.61	163.57	443.24	992.49		
Capacity	139.51	155.93	551.90	880.20			133.80	157.11	443.24	992.49		

Critical Gap and Follow Up Time												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
tc,base, Base Critical Gap	7.10	6.50	6.20	4.10			7.10	6.50	6.20	4.10		
tc,base,I, Base Critical Gap												
tc,base,II, Base Critical Gap												
tc,HV, Heavy Vehicles Adjustment	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00		
Phv, % Heavy Vehicles	0.00	0.00	0.00	6.00			0.00	0.00	4.00	10.00		
tc,G, Grade Adjustment Factor	0.20	0.20	0.10	1.00			0.20	0.20	0.10	1.00		
G, % Grade		0.00			0.00			0.00			0.00	
T3,It, Geometry Adjustment	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00		
tc, Critical Gap	7.10	6.50	6.20	4.16			7.10	6.50	6.24	4.20		
tc,I, Critical Gap (Stage I)												
tc,II, Critical Gap (Stage II)												
tf,base, Base Follow-Up Time	3.50	4.00	3.30	2.20			3.50	4.00	3.30	2.20		
tf,hv, Heavy Vehicles Adjustment	0.90	0.90	0.90	0.90			0.90	0.90	0.90	0.90		
tf, Follow-Up Time	3.50	4.00	3.30	2.25			3.50	4.00	3.34	2.29		

Delay and Level of Service by Movement												
Approach	N			E (Major)			S			W (Major)		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
vx, Volume	4.40	3.30	5.49	25.27	526.37	9.89	12.09	0.00	0.00	10.99	676.92	20.88
cmx, Capacity	139.51	155.93	551.90	880.20			133.80	157.11	443.24	992.49		
V / C	0.03	0.02	0.01	0.03			0.09	0.00	0.00	0.01		
d, Delay	31.94	29.23	12.66	9.21			34.56	30.57	15.78	8.67		
LOS	D	D	B	A			D	D	C	A		
dA, Approach Delay	23.23			0.41			34.56			0.13		
Approach LOS	C						D					
dRank1, Rank 1 Delay				0.00						0.00		

Delay and Level of Service by Lane						
Approach	N	E (Major)		S	W (Major)	
Lane	Lane 1	Lane 1	Lane 2	Lane 1	Lane 1	Lane 2
Movements	L1, T, R1		T, R1	L1, T, R1		T, R1
vx, Volume	13.19	25.27	536.26	12.09	10.99	697.80
Flared Storage Size						
cmx, Capacity	210.64			133.80		
V / C	0.06			0.09		
Q95, 95% Queue Length	0.20			0.29		
d, Delay	23.23			34.56		
LOS	C			D		
dA, Approach Delay	23.23	0.41		34.56	0.13	
Approach LOS	C			D		

Node 50155: 42nd & Monroe			
Control Type	AWSC		
Method	HCM 2000		
Average Delay	11.51		
Average LOS	B		

Volume and Adjustments												
Approach	N			E			S			W		
Movement	L1	T	R1	L1	T	R1	L1	T	R1	L1	T	R1
Base Volume	0.00	90.00	216.00	0.00	12.00	36.00	7.00	66.00	1.00	200.00	40.00	19.00
PHF, Peak-hour factor	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840	0.840
Flow Rate	0.00	107.14	257.14	0.00	14.29	42.86	8.33	78.57	1.19	238.10	47.62	22.62
Geometry Group	1			1			1			1		

Saturation Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	364.29	57.14	88.10	308.33
Left Turn Flow Rate	0.00	0.00	8.33	238.10
Right Turn Flow Rate	257.14	42.86	1.19	22.62
PLT, Proportion LT	0.00	0.00	0.09	0.77
PRT, Proportion RT	0.71	0.75	0.01	0.07
PHV, Proportion HV	2.29	0.50	0.45	0.77
hLT,adj, Headway adjustment	0.20	0.20	0.20	0.20
hRT,adj, Headway adjustment	-0.60	-0.60	-0.60	-0.60
hHV,adj, Headway adjustment	1.70	1.70	1.70	1.70
hadj, Headway adjustment	-0.38	-0.44	0.02	0.12

Departure Headway				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	364.29	57.14	88.10	308.33
hd initial	3.20	3.20	3.20	3.20
x initial	0.32	0.05	0.08	0.27
hd, iteration 1	4.21	4.50	4.86	4.84
Difference, iteration 1	1.01	1.30	1.66	1.64
hd, iteration 2	4.56	4.94	5.30	5.13
Difference, iteration 2	0.35	0.44	0.44	0.29
hd, iteration 3	4.63	5.06	5.40	5.22
Difference, iteration 3	0.07	0.12	0.11	0.09
hd, iteration 4	4.66	5.09	5.43	5.24
Difference, iteration 4	0.02	0.03	0.03	0.02
Convergence	Y	Y	Y	Y
hd final, Departure Headway	4.66	5.09	5.43	5.24
x final, Degree of Utilization	0.47	0.08	0.13	0.45

Capacity and Level of Service				
Approach	N	E	S	W
Lanes	Lane 1	Lane 1	Lane 1	Lane 1
Total Lane Flow Rate	364.29	57.14	88.10	308.33
hd, Departure Headway	4.66	5.09	5.43	5.24
x, Degree of Utilization	0.47	0.08	0.13	0.45
m, Move Up Time	2.00	2.00	2.00	2.00
ts, Service Time	2.66	3.09	3.43	3.24
Capacity	773.04	706.70	662.61	686.82
Delay	11.73	8.54	9.26	12.44
LOS	B	A	A	B
Q95, 95% Queue Length				
Approach Delay	11.73	8.54	9.26	12.44
Approach LOS	B	A	A	B
Intersection Delay	11.51			
Intersection LOS	B			

Node 50158: Home & Harrison		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	5.3	
Worst Case Delay	10.24	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	29.00	9.00	49.00	29.00	2.00	68.00
PHF, Peak-hour factor	0.730	0.730	0.730	0.730	0.730	0.730
V, Adjusted Volume	39.73	12.33	67.12	39.73	2.74	93.15

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			67.12		2.74	93.15
Conflicting Volume (Veh)			52.05		219.86	45.89
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			52.05		219.86	45.89
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1566.83		772.81	1029.36
Capacity			1566.83		738.91	1029.36

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			0.00		0.00	0.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.10		6.40	6.20
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.20		3.50	3.30

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	39.73	12.33	67.12	39.73	2.74	93.15
cmx, Capacity			1566.83		738.91	1029.36
V / C			0.04		0.00	0.09
d, Delay			7.40		10.24	8.86
LOS			A		B	A
dA, Approach Delay	0.00		4.65		8.90	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.32			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	52.05	106.85	95.89
Flared Storage Size			
cmx, Capacity		1566.83	1017.93
V / C		0.07	0.09
Q95, 95% Queue Length		0.22	0.31
d, Delay		7.40	8.90
LOS		A	A
dA, Approach Delay	0.00	4.65	8.90
Approach LOS			A

Node 50173: Linwood & Queen		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.39	
Worst Case Delay	18.02	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	12.00	442.00	11.00	3.00	380.00	6.00
PHF, Peak-hour factor	0.900	0.900	0.900	0.900	0.900	0.900
V, Adjusted Volume	13.33	491.11	12.22	3.33	422.22	6.67

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	13.33		12.22	3.33		
Conflicting Volume (Veh)	428.89		943.33	425.56		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	428.89		943.33	425.56		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1079.11		293.73	633.07		
Capacity	1079.11		288.62	633.07		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	12.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.22		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.31		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	13.33	491.11	12.22	3.33	422.22	6.67
cmx, Capacity	1079.11		288.62	633.07		
V / C	0.01		0.04	0.01		
d, Delay	8.38		18.02	11.24		
LOS	A		C	B		
dA, Approach Delay	0.22		16.57		0.00	
Approach LOS			C			
dRank1, Rank 1 Delay	0.15				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	504.44	15.56	428.89
Flared Storage Size			
cmx, Capacity	1079.11	326.71	
V / C	0.47	0.05	
Q95, 95% Queue Length	2.54	0.15	
d, Delay	8.38	16.57	
LOS	A	C	
dA, Approach Delay	0.22	16.57	0.00
Approach LOS		C	

Node 50174: Linwood & Jack		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	0.46	
Worst Case Delay	18.3	
Worst Case LOS	C	

Volume and Adjustments						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Base Volume	19.00	434.00	8.00	8.00	379.00	4.00
PHF, Peak-hour factor	0.890	0.890	0.890	0.890	0.890	0.890
V, Adjusted Volume	21.35	487.64	8.99	8.99	425.84	4.49

Pedestrians						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Flow (Ped/hr)	0.00		0.00	0.00		
w, Lane Width (ft)	12.00		12.00	12.00		
Sp, Walking Speed (ft/s)	4.00		4.00	4.00		
fpb, Percent Blockage	0.00		0.00	0.00		

Capacity of Movements below Rank 1						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
Rank	2	1	3	2	1	1
vx, Volume	21.35		8.99	8.99		
Conflicting Volume (Veh)	430.34		958.43	428.09		
Conflicting Volume (Ped)	0.00		0.00	0.00		
Conflicting Volume	430.34		958.43	428.09		
Two-Stage Gap Acceptance			No			
Number of Storage Spaces						
cpx, Potential Capacity	1139.95		287.73	631.00		
Capacity	1139.95		280.18	631.00		

Critical Gap and Follow Up Time						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
tc,base, Base Critical Gap	4.10		7.10	6.20		
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00		1.00	1.00		
Phv, % Heavy Vehicles	0.00		0.00	0.00		
tc,G, Grade Adjustment Factor	1.00		0.20	0.10		
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.00		0.70	0.00		
tc, Critical Gap	4.10		6.40	6.20		
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	2.20		3.50	3.30		
tf,hv, Heavy Vehicles Adjustment	0.90		0.90	0.90		
tf, Follow-Up Time	2.20		3.50	3.30		

Delay and Level of Service by Movement						
Approach	N (Major)		E		S (Major)	
Movement	L1	T	L1	R1	T	R1
vx, Volume	21.35	487.64	8.99	8.99	425.84	4.49
cmx, Capacity	1139.95		280.18	631.00		
V / C	0.02		0.03	0.01		
d, Delay	8.22		18.30	11.16		
LOS	A		C	B		
dA, Approach Delay	0.34		14.73		0.00	
Approach LOS			B			
dRank1, Rank 1 Delay	0.22				0.00	

Delay and Level of Service by Lane			
Approach	N (Major)	E	S (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, T	L1, R1	T, R1
vx, Volume	508.99	17.98	430.34
Flared Storage Size			
cmx, Capacity	1139.95	388.05	
V / C	0.45	0.05	
Q95, 95% Queue Length	2.35	0.15	
d, Delay	8.22	14.73	
LOS	A	B	
dA, Approach Delay	0.34	14.73	0.00
Approach LOS		B	

Node 50176: 70th & Monroe		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	1.79	
Worst Case Delay	9.21	
Worst Case LOS	A	

Volume and Adjustments						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Base Volume	14.00	0.00	44.00	15.00	11.00	34.00
PHF, Peak-hour factor	0.880	0.880	0.880	0.880	0.880	0.880
V, Adjusted Volume	15.91	0.00	50.00	17.05	12.50	38.64

Pedestrians						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Flow (Ped/hr)	0.00	0.00			0.00	
w, Lane Width (ft)	12.00	12.00			12.00	
Sp, Walking Speed (ft/s)	4.00	4.00			4.00	
fpb, Percent Blockage	0.00	0.00			0.00	

Capacity of Movements below Rank 1						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
Rank	3	2	1	1	2	1
vx, Volume	15.91	0.00			12.50	
Conflicting Volume (Veh)	122.16	58.52			67.05	
Conflicting Volume (Ped)	0.00	0.00			0.00	
Conflicting Volume	122.16	58.52			67.05	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces						
cpx, Potential Capacity	877.91	958.88			1497.07	
Capacity	870.41	958.88			1497.07	

Critical Gap and Follow Up Time						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
tc,base, Base Critical Gap	7.10	6.20			4.10	
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment	1.00	1.00			1.00	
Phv, % Heavy Vehicles	0.00	20.00			8.00	
tc,G, Grade Adjustment Factor	0.20	0.10			1.00	
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment	0.70	0.00			0.00	
tc, Critical Gap	6.40	6.40			4.18	
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time	3.50	3.30			2.20	
tf,hv, Heavy Vehicles Adjustment	0.90	0.90			0.90	
tf, Follow-Up Time	3.50	3.48			2.27	

Delay and Level of Service by Movement						
Approach	N		E (Major)		W (Major)	
Movement	L1	R1	T	R1	L1	T
vx, Volume	15.91	0.00	50.00	17.05	12.50	38.64
cmx, Capacity	870.41	958.88			1497.07	
V / C	0.02	0.00			0.01	
d, Delay	9.21	8.83			7.42	
LOS	A	A			A	
dA, Approach Delay	9.21		0.00		1.81	
Approach LOS	A					
dRank1, Rank 1 Delay			0.00		0.06	

Delay and Level of Service by Lane			
Approach	N	E (Major)	W (Major)
Lane	Lane 1	Lane 1	Lane 1
Movements	L1, R1	T, R1	L1, T
vx, Volume	15.91	67.05	51.14
Flared Storage Size			
cmx, Capacity	870.41		1497.07
V / C	0.02		0.03
Q95, 95% Queue Length	0.06		0.11
d, Delay	9.21		7.42
LOS	A		A
dA, Approach Delay	9.21	0.00	1.81
Approach LOS	A		

Node 50189: Fuller & Thompson		
Control Type	TWSC	
Method	HCM 2000	
dl, Average Delay	2.59	
Worst Case Delay	12.55	
Worst Case LOS	B	

Volume and Adjustments						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Base Volume	196.00	6.00	71.00	124.00	2.00	63.00
PHF, Peak-hour factor	0.940	0.940	0.940	0.940	0.940	0.940
V, Adjusted Volume	208.51	6.38	75.53	131.91	2.13	67.02

Pedestrians						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Flow (Ped/hr)			0.00		0.00	0.00
w, Lane Width (ft)			12.00		12.00	12.00
Sp, Walking Speed (ft/s)			4.00		4.00	4.00
fpb, Percent Blockage			0.00		0.00	0.00

Capacity of Movements below Rank 1						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
Rank	1	1	2	1	3	2
vx, Volume			75.53		2.13	67.02
Conflicting Volume (Veh)			214.89		494.68	211.70
Conflicting Volume (Ped)			0.00		0.00	0.00
Conflicting Volume			214.89		494.68	211.70
Two-Stage Gap Acceptance					No	
Number of Storage Spaces						
cpx, Potential Capacity			1349.16		537.72	820.92
Capacity			1349.16		505.09	820.92

Critical Gap and Follow Up Time						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
tc,base, Base Critical Gap			4.10		7.10	6.20
tc,base,I, Base Critical Gap						
tc,base,II, Base Critical Gap						
tc,HV, Heavy Vehicles Adjustment			1.00		1.00	1.00
Phv, % Heavy Vehicles			3.00		0.00	5.00
tc,G, Grade Adjustment Factor			1.00		0.20	0.10
G, % Grade	0.00		0.00		0.00	
T3,It, Geometry Adjustment			0.00		0.70	0.00
tc, Critical Gap			4.13		6.40	6.25
tc,I, Critical Gap (Stage I)						
tc,II, Critical Gap (Stage II)						
tf,base, Base Follow-Up Time			2.20		3.50	3.30
tf,hv, Heavy Vehicles Adjustment			0.90		0.90	0.90
tf, Follow-Up Time			2.23		3.50	3.34

Delay and Level of Service by Movement						
Approach	N (Major)		S (Major)		W	
Movement	T	R1	L1	T	L1	R1
vx, Volume	208.51	6.38	75.53	131.91	2.13	67.02
cmx, Capacity			1349.16		505.09	820.92
V / C			0.06		0.00	0.08
d, Delay			7.83		12.55	9.80
LOS			A		B	A
dA, Approach Delay	0.00		2.85		9.89	
Approach LOS					A	
dRank1, Rank 1 Delay	0.00		0.48			

Delay and Level of Service by Lane			
Approach	N (Major)	S (Major)	W
Lane	Lane 1	Lane 1	Lane 1
Movements	T, R1	L1, T	L1, R1
vx, Volume	214.89	207.45	69.15
Flared Storage Size			
cmx, Capacity		1349.16	805.42
V / C		0.15	0.09
Q95, 95% Queue Length		0.54	0.28
d, Delay		7.83	9.89
LOS		A	A
dA, Approach Delay	0.00	2.85	9.89
Approach LOS			A