

Appendix S2

Suggested Signal Timing Plans (2007 PM Peak)

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2007 Chilliwack Transportation Plan

2: Watson Rd & Vedder Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	50.0		0.0	50.0		0.0	60.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0	15.0	15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1296.3			397.3			522.5			805.9	
Travel Time (s)		93.3			28.6			37.6			58.0	
Volume (vph)	151	225	58	223	216	188	38	415	157	398	517	189
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phases	7	4		3	8	8	5	2		1	6	
Minimum Initial (s)	6.0	8.0		6.0	8.0	8.0	6.0	10.0		6.0	10.0	
Minimum Split (s)	11.0	28.5		11.0	26.5	26.5	11.0	29.5		11.0	20.5	
Total Split (s)	27.0	40.0	0.0	14.0	27.0	27.0	12.0	26.0	0.0	32.0	46.0	0.0
Total Split (%)	24.1%	35.7%	0.0%	12.5%	24.1%	24.1%	10.7%	23.2%	0.0%	28.6%	41.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	2.0		1.5	2.0	2.0	1.5	2.0		1.5	2.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)	39.7	26.4		33.9	22.7	22.7	42.7	34.3		65.4	58.4	
Actuated g/C Ratio	0.35	0.24		0.30	0.20	0.20	0.38	0.31		0.58	0.52	
v/c Ratio	0.46	0.71		0.62	0.63	0.42	0.12	0.59		0.81	0.43	
Control Delay	26.0	39.7		34.3	45.6	7.0	11.1	31.0		30.5	14.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.0	39.7		34.3	45.6	7.0	11.1	31.0		30.5	14.9	
LOS	C	D		C	D	A	B	C		C	B	
Approach Delay		34.9			30.0			29.7			20.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 106 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 26.9

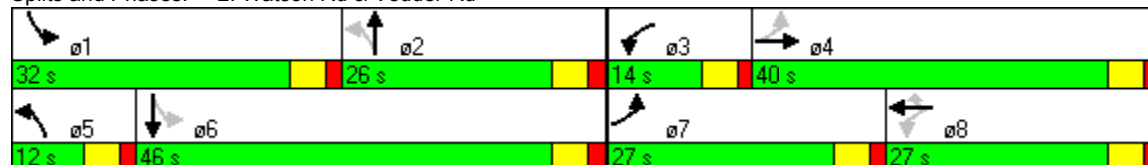
Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Watson Rd & Vedder Rd



2007 Chilliwack Transportation Plan
4: Spruce Dr / Britton Ave & Vedder Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	70.0		0.0	65.0		0.0	50.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0	15.0	15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		791.7			272.3			403.4			730.9	
Travel Time (s)		57.0			19.6			29.0			52.6	
Volume (vph)	72	9	11	39	19	72	19	918	38	108	1233	104
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6			2		
Detector Phases	8	8		4	4	4	1	6		5	2	
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	28.5	28.5		28.5	28.5	28.5	12.0	30.0		12.0	30.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	15.0	65.0	0.0	15.0	65.0	0.0
Total Split (%)	28.6%	28.6%	0.0%	28.6%	28.6%	28.6%	13.4%	58.0%	0.0%	13.4%	58.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.5	1.5		1.5	1.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)	16.0	16.0		16.0	16.0	16.0	90.0	81.0		91.9	88.9	
Actuated g/C Ratio	0.14	0.14		0.14	0.14	0.14	0.80	0.72		0.82	0.79	
v/c Ratio	0.40	0.09		0.22	0.08	0.27	0.09	0.41		0.30	0.53	
Control Delay	43.7	24.4		41.2	39.1	9.3	3.7	7.9		3.1	3.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	43.7	24.4		41.2	39.1	9.3	3.7	7.9		3.1	3.2	
LOS	D	C		D	D	A	A	A		A	A	
Approach Delay		39.6			23.2			7.8			3.2	
Approach LOS		D			C			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 11 (10%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: Spruce Dr / Britton Ave & Vedder Rd

		
ø1	ø2	ø4
15 s	65 s	32 s
		
ø5	ø6	ø8
15 s	65 s	32 s

2007 Chilliwack Transportation Plan

5: Knight Street & Vedder Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	40.0		0.0	65.0		0.0	55.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		366.0			731.6			730.9			332.1	
Travel Time (s)		26.4			52.7			52.6			23.9	
Volume (vph)	180	164	153	206	136	89	143	891	79	119	1134	55
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Detector Phases	3	8	8	7	4	4	1	6		5	2	
Minimum Initial (s)	8.0	10.0	10.0	8.0	10.0	10.0	8.0	20.0		8.0	20.0	
Minimum Split (s)	15.0	28.5	28.5	15.0	27.5	27.5	13.0	30.0		13.0	30.0	
Total Split (s)	15.0	28.5	28.5	16.0	29.5	29.5	15.0	54.5	0.0	13.0	52.5	0.0
Total Split (%)	13.4%	25.4%	25.4%	14.3%	26.3%	26.3%	13.4%	48.7%	0.0%	11.6%	46.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	1.5	1.5		1.5	1.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)	31.1	18.2	18.2	33.5	19.4	19.4	69.5	57.3		65.4	55.0	
Actuated g/C Ratio	0.28	0.16	0.16	0.30	0.17	0.17	0.62	0.51		0.58	0.49	
v/c Ratio	0.53	0.59	0.42	0.61	0.46	0.28	0.57	0.59		0.44	0.76	
Control Delay	34.8	45.8	7.8	37.5	42.9	8.5	23.7	19.1		15.6	31.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.8	45.8	7.8	37.5	42.9	8.5	23.7	19.1		15.6	31.6	
LOS	C	D	A	D	D	A	C	B		B	C	
Approach Delay		30.1			33.2			19.7			30.1	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 72 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 27.1

Intersection LOS: C

Intersection Capacity Utilization 74.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 5: Knight Street & Vedder Rd

			
ø1	ø2	ø3	ø4
15 s	52.5 s	15 s	29.5 s
			
ø5	ø6	ø7	ø8
13 s	54.5 s	16 s	28.5 s

2007 Chilliwack Transportation Plan

6: Luckakuck Way & Vedder Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		25.0	35.0		55.0	105.0		45.0	85.0		25.0
Storage Lanes	1		1	1		1	1		1	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		222.2			169.7			332.1			341.2	
Travel Time (s)		16.0			12.2			23.9			24.6	
Volume (vph)	500	374	166	427	254	107	188	825	298	193	1003	303
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		pm+ov
Protected Phases	4	4		8	8		5	2		1	6	4
Permitted Phases			4			8			2			6
Detector Phases	4	4	4	8	8	8	5	2	2	1	6	4
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	12.0	27.5	27.5	12.0	27.5	27.0
Total Split (s)	30.0	30.0	30.0	27.0	27.0	27.0	21.0	34.0	34.0	21.0	34.0	30.0
Total Split (%)	26.8%	26.8%	26.8%	24.1%	24.1%	24.1%	18.8%	30.4%	30.4%	18.8%	30.4%	26.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0	1.5	2.0	1.5
Lead/Lag							Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	None
Act Effct Green (s)	26.5	26.5	26.5	22.6	22.6	22.6	17.2	30.8	30.8	20.1	33.7	63.2
Actuated g/C Ratio	0.24	0.24	0.24	0.20	0.20	0.20	0.15	0.28	0.28	0.18	0.30	0.56
v/c Ratio	0.81	0.83	0.41	0.74	0.76	0.28	0.76	0.65	0.50	0.67	0.72	0.34
Control Delay	48.0	41.1	12.7	53.2	48.1	8.3	49.7	32.6	9.9	54.9	38.9	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	41.1	12.7	53.2	48.1	8.3	49.7	32.6	9.9	54.9	38.9	6.5
LOS	D	D	B	D	D	A	D	C	A	D	D	A
Approach Delay		38.4			44.1			29.9			34.4	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 28 (25%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 35.7

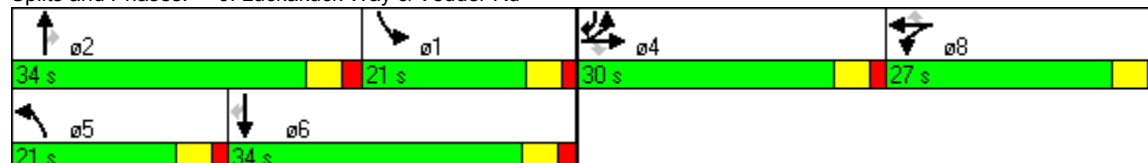
Intersection LOS: D

Intersection Capacity Utilization 72.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Luckakuck Way & Vedder Rd



2007 Chilliwack Transportation Plan

8: Airport Rd & Yale Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	30.0		0.0	35.0		0.0
Storage Lanes	0		1	2		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		153.7			728.2			320.6			498.6	
Travel Time (s)		11.1			52.4			23.1			35.9	
Volume (vph)	5	8	40	277	5	147	34	1403	359	88	1304	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Split		Perm	Split			pm+pt			pm+pt		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phases	4	4	4	8	8		5	2		1	6	
Minimum Initial (s)	7.0	7.0	7.0	10.0	10.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	25.5	25.5	25.5	26.5	26.5		12.0	20.5		12.0	24.5	
Total Split (s)	25.5	25.5	25.5	26.5	26.5	0.0	12.0	48.0	0.0	12.0	48.0	0.0
Total Split (%)	22.8%	22.8%	22.8%	23.7%	23.7%	0.0%	10.7%	42.9%	0.0%	10.7%	42.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.5	2.0		1.5	2.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	
Act Effct Green (s)		10.0	10.0	17.6	17.6		73.4	64.1		77.3	70.5	
Actuated g/C Ratio		0.09	0.09	0.16	0.16		0.66	0.57		0.69	0.63	
v/c Ratio		0.09	0.24	0.57	0.43		0.16	0.68		0.36	0.45	
Control Delay		46.9	14.8	45.0	9.1		8.9	19.4		14.5	5.5	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		46.9	14.8	45.0	9.1		8.9	19.4		14.5	5.5	
LOS		D	B	D	A		A	B		B	A	
Approach Delay		23.0			32.3			19.2			6.1	
Approach LOS		C			C			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 48 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 15.8

Intersection LOS: B

Intersection Capacity Utilization 65.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 8: Airport Rd & Yale Rd

			
ø1	ø2	ø4	ø8
12 s	48 s	25.5 s	26.5 s
			
ø5	ø6		
12 s	48 s		

2007 Chilliwack Transportation Plan

9: Hocking Ave & Yale Rd

PM Peak
2007 Conditions with Recommended Improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	60.0		0.0	50.0		0.0	45.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		171.5			456.6			498.6			806.9	
Travel Time (s)		12.3			32.9			35.9			58.1	
Volume (vph)	83	63	66	163	60	253	127	1123	119	174	1151	90
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	7	4		3	8		5	2		1	6	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	11.0	28.0		11.0	28.0		11.0	33.0		11.0	33.0	
Total Split (s)	14.0	29.0	0.0	14.0	29.0	0.0	15.0	49.0	0.0	20.0	54.0	0.0
Total Split (%)	12.5%	25.9%	0.0%	12.5%	25.9%	0.0%	13.4%	43.8%	0.0%	17.9%	48.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effct Green (s)	29.7	19.4		31.2	22.4		66.5	55.4		71.8	58.4	
Actuated g/C Ratio	0.27	0.17		0.28	0.20		0.59	0.49		0.64	0.52	
v/c Ratio	0.41	0.42		0.50	0.74		0.55	0.79		0.63	0.75	
Control Delay	32.5	28.9		34.7	27.3		21.2	29.2		24.7	25.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.5	28.9		34.7	27.3		21.2	29.2		24.7	25.4	
LOS	C	C		C	C		C	C		C	C	
Approach Delay		30.3			29.8			28.4			25.3	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 105 (94%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 27.5

Intersection LOS: C

Intersection Capacity Utilization 81.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: Hocking Ave & Yale Rd

ø1	ø2	ø3	ø4
20 s	49 s	14 s	29 s
ø5	ø6	ø7	ø8
15 s	54 s	14 s	29 s

2007 Chilliwack Transportation Plan

10: Hodgins Ave & Yale Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	45.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		172.2			116.0			806.9			170.0	
Travel Time (s)		12.4			8.4			58.1			12.2	
Volume (vph)	91	199	357	227	172	31	287	695	214	44	528	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt			pm+pt			Perm		
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phases	7	4		3	8		5	2		6		6
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	29.0		12.0	29.0		12.0	30.0		27.0	27.0	
Total Split (s)	12.0	29.0	0.0	12.0	29.0	0.0	12.0	39.0	0.0	27.0	27.0	0.0
Total Split (%)	15.0%	36.3%	0.0%	15.0%	36.3%	0.0%	15.0%	48.8%	0.0%	33.8%	33.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Act Effct Green (s)	35.1	26.1		35.7	28.6		32.4	32.4		20.4	20.4	
Actuated g/C Ratio	0.44	0.34		0.47	0.37		0.42	0.42		0.27	0.27	
v/c Ratio	0.19	0.94		0.81	0.32		0.95	0.67		0.40	0.67	
Control Delay	12.3	45.3		37.2	19.8		58.3	18.5		31.3	27.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.3	45.3		37.2	19.8		58.3	18.5		31.3	27.0	
LOS	B	D		D	B		E	B		C	C	
Approach Delay		40.6			29.0			28.1			27.3	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 76.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 30.8

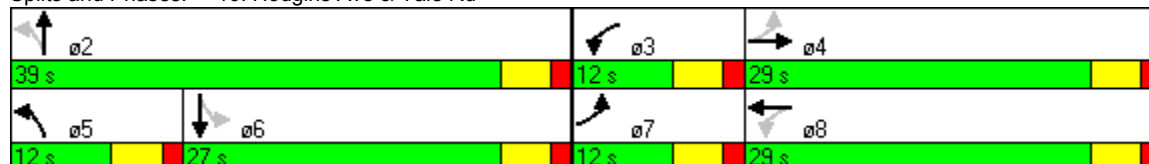
Intersection LOS: C

Intersection Capacity Utilization 92.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 10: Hodgins Ave & Yale Rd



2007 Chilliwack Transportation Plan 13: Wellington Ave & Young Rd

PM Peak
2007 Conditions with Recommended Improvements

	↖	↗	←	↖	↗	↑	↖	↗	↓	↖	↗	↖
Lane Group	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SBR2	NEL
Lane Configurations		↖	↗	↖	↖	↖			↖			↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0	15.0	15.0	15.0	15.0		15.0	15.0			15.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0
Right Turn on Red				Yes			Yes				Yes	
Link Speed (k/h)			50			50			50			50
Link Distance (m)			166.4			91.0			199.0			89.9
Travel Time (s)			12.0			6.6			14.3			6.5
Volume (vph)	153	51	22	39	334	81	105	4	229	23	43	339
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Perm		Perm	Perm	pm+pt			Perm				Perm
Protected Phases		8			5	2			6			
Permitted Phases	8	8	8	8	2			6				8
Detector Phases	8	8	8	8	5	2		6	6			8
Minimum Initial (s)	12.0	12.0	12.0	12.0	10.0	12.0		12.0	12.0			12.0
Minimum Split (s)	31.0	31.0	31.0	31.0	21.0	27.0		27.0	27.0			31.0
Total Split (s)	42.0	42.0	42.0	42.0	21.0	48.0	0.0	27.0	27.0	0.0	0.0	42.0
Total Split (%)	46.7%	46.7%	46.7%	46.7%	23.3%	53.3%	0.0%	30.0%	30.0%	0.0%	0.0%	46.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5			3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5			1.5
Lead/Lag					Lead			Lag	Lag			
Lead-Lag Optimize?					Yes			Yes	Yes			
Recall Mode	None	None	None	None	Min	C-Min		Min	Min			None
Act Effct Green (s)		36.1	36.1	36.1	47.9	47.9			30.6			36.1
Actuated g/C Ratio		0.40	0.40	0.40	0.53	0.53			0.34			0.40
v/c Ratio		0.40	0.03	0.06	0.47	0.40			0.53			0.91
Control Delay		20.5	14.9	5.1	15.1	13.6			29.1			43.1
Queue Delay		0.0	0.0	0.0	0.5	1.7			0.0			23.9
Total Delay		20.5	14.9	5.1	15.6	15.4			29.1			67.1
LOS		C	B	A	B	B			C			E
Approach Delay			17.8			15.4			29.1			57.8
Approach LOS			B			B			C			E

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 30.0

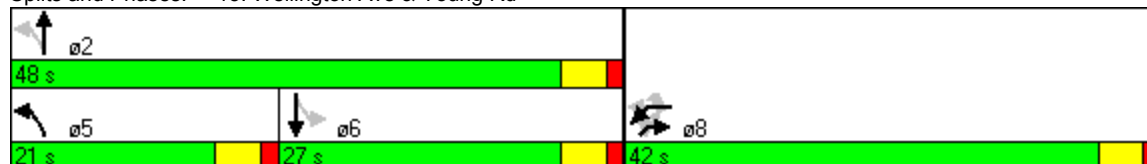
Intersection LOS: C

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 13: Wellington Ave & Young Rd



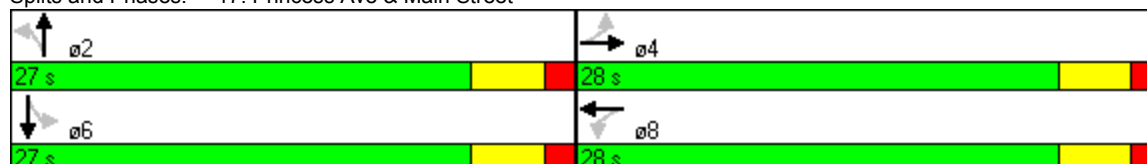
		
Lane Group	NER	NER2
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Total Lost Time (s)	3.0	3.0
Leading Detector (m)	15.0	
Trailing Detector (m)	0.0	
Right Turn on Red		Yes
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Volume (vph)	6	54
Peak Hour Factor	0.90	0.90
Turn Type		
Protected Phases	8	
Permitted Phases		
Detector Phases	8	
Minimum Initial (s)	12.0	
Minimum Split (s)	31.0	
Total Split (s)	42.0	0.0
Total Split (%)	46.7%	0.0%
Yellow Time (s)	3.5	
All-Red Time (s)	1.5	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	
Act Effct Green (s)	36.1	
Actuated g/C Ratio	0.40	
v/c Ratio	0.10	
Control Delay	5.3	
Queue Delay	0.0	
Total Delay	5.3	
LOS	A	
Approach Delay		
Approach LOS		
Intersection Summary		

2007 Chilliwack Transportation Plan
17: Princess Ave & Main Street

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		822.6			166.1			206.9			92.2	
Travel Time (s)		59.2			12.0			14.9			6.6	
Volume (vph)	6	70	20	50	96	24	26	156	32	40	119	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	50.9%	50.9%	0.0%	50.9%	50.9%	0.0%	49.1%	49.1%	0.0%	49.1%	49.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Act Effct Green (s)		12.5			12.5			39.5			39.5	
Actuated g/C Ratio		0.23			0.23			0.72			0.72	
v/c Ratio		0.25			0.48			0.19			0.15	
Control Delay		13.8			16.6			3.2			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.8			16.6			3.2			4.4	
LOS		B			B			A			A	
Approach Delay		13.8			16.6			3.2			4.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 55												
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 55												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.48												
Intersection Signal Delay: 8.6												
Intersection LOS: A												
Intersection Capacity Utilization 38.1%												
ICU Level of Service A												
Analysis Period (min) 15												

Splits and Phases: 17: Princess Ave & Main Street



2007 Chilliwack Transportation Plan
20: Airport Rd & Young Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		20.0	55.0		20.0	50.0		0.0	45.0		40.0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		728.2			317.1			243.1			291.1	
Travel Time (s)		52.4			22.8			17.5			21.0	
Volume (vph)	184	238	187	206	125	62	97	601	261	49	712	150
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	7	4		3	8		5	2		1	6	
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	12.0		7.0	12.0	
Minimum Split (s)	15.0	30.0		15.0	30.0		15.0	25.0		15.0	30.0	
Total Split (s)	15.0	33.0	0.0	16.0	34.0	0.0	15.0	36.0	0.0	15.0	36.0	0.0
Total Split (%)	15.0%	33.0%	0.0%	16.0%	34.0%	0.0%	15.0%	36.0%	0.0%	15.0%	36.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	37.5	26.2		40.7	31.3		38.2	30.4		36.1	29.3	
Actuated g/C Ratio	0.41	0.30		0.46	0.36		0.42	0.35		0.40	0.33	
v/c Ratio	0.40	0.86		0.69	0.32		0.38	0.78		0.21	0.81	
Control Delay	18.4	38.0		30.0	24.1		17.9	28.6		15.6	31.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	38.0		30.0	24.1		17.9	28.6		15.6	31.7	
LOS	B	D		C	C		B	C		B	C	
Approach Delay		32.1			27.2			27.5			30.8	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 88.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 79.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 20: Airport Rd & Young Rd

			
ø1	ø2	ø3	ø4
15 s	36 s	16 s	33 s
			
ø5	ø6	ø7	ø8
15 s	36 s	15 s	34 s

2007 Chilliwack Transportation Plan
29: Luckakuck Way & Mall Entrances

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	70.0		0.0	15.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		253.3			222.2			110.2			141.0	
Travel Time (s)		18.2			16.0			7.9			10.2	
Volume (vph)	153	563	53	25	572	50	320	40	34	65	46	133
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	7.0		5.0	7.0	
Minimum Split (s)	10.0	23.0		10.0	25.0		10.0	24.0		10.0	24.0	
Total Split (s)	21.0	43.0	0.0	12.0	34.0	0.0	33.0	45.0	0.0	12.0	24.0	0.0
Total Split (%)	18.8%	38.4%	0.0%	10.7%	30.4%	0.0%	29.5%	40.2%	0.0%	10.7%	21.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Act Effct Green (s)	63.8	56.6		56.4	47.9		42.2	32.2		22.9	13.8	
Actuated g/C Ratio	0.57	0.51		0.50	0.43		0.38	0.29		0.20	0.12	
v/c Ratio	0.50	0.38		0.07	0.46		0.71	0.15		0.23	0.65	
Control Delay	16.6	20.2		14.7	31.4		32.0	16.4		24.2	23.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.6	20.2		14.7	31.4		32.0	16.4		24.2	23.7	
LOS	B	C		B	C		C	B		C	C	
Approach Delay		19.5			30.7			29.1			23.8	
Approach LOS		B			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 59 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 25.4

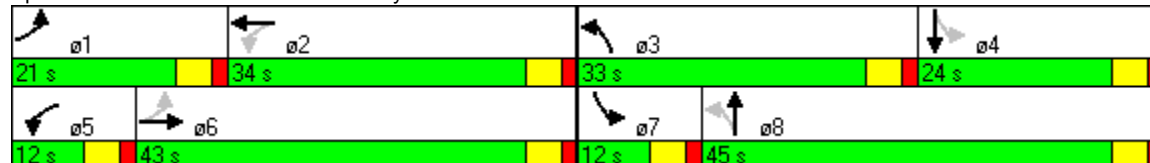
Intersection LOS: C

Intersection Capacity Utilization 67.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Luckakuck Way & Mall Entrances



2007 Chilliwack Transportation Plan
32: Thomas Rd & Vedder Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	15.0		0.0	40.0		0.0	35.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		96.0			539.0			329.8			522.5	
Travel Time (s)		6.9			38.8			23.7			37.6	
Volume (vph)	61	36	35	142	20	47	42	552	156	123	599	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phases	7	4		3	8		5	2		1	6	
Minimum Initial (s)	10.0	8.0		10.0	8.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	15.0	20.0		15.0	19.0		10.0	18.5		10.0	21.5	
Total Split (s)	29.0	20.0	0.0	29.0	20.0	0.0	10.0	52.0	0.0	11.0	53.0	0.0
Total Split (%)	25.9%	17.9%	0.0%	25.9%	17.9%	0.0%	8.9%	46.4%	0.0%	9.8%	47.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	2.0		1.5	2.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effct Green (s)	21.8	11.5		27.4	15.4		71.7	63.1		78.3	68.9	
Actuated g/C Ratio	0.19	0.10		0.24	0.14		0.64	0.56		0.70	0.62	
v/c Ratio	0.23	0.37		0.42	0.27		0.21	0.76		0.48	0.64	
Control Delay	30.6	29.1		34.7	18.3		10.1	27.5		23.6	17.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	30.6	29.1		34.7	18.3		10.1	27.5		23.6	17.1	
LOS	C	C		C	B		B	C		C	B	
Approach Delay		29.8			29.5			26.5			18.2	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 22 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.6

Intersection LOS: C

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 32: Thomas Rd & Vedder Rd

			
11 s	52 s	29 s	20 s
			
10 s	53 s	29 s	20 s

2007 Chilliwack Transportation Plan

36: Yale Rd & Lickman Rd

PM Peak
2007 Conditions with Recommended Improvements

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		50.0	0.0		0.0
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	15.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		91.1			56.0			298.3			458.2	
Travel Time (s)		6.6			4.0			21.5			33.0	
Volume (vph)	44	47	159	217	59	84	98	352	170	30	298	39
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phases	4	4		8	8		2	2		6	6	6
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		30.0	30.0	30.0
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	55.0	55.0	0.0	55.0	55.0	55.0
Total Split (%)	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	55.0%	55.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effect Green (s)		33.7			33.7			41.5			41.5	41.5
Actuated g/C Ratio		0.41			0.41			0.51			0.51	0.51
v/c Ratio		0.40			0.87			0.90			0.42	0.05
Control Delay		13.0			34.2			27.3			15.0	3.9
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		13.0			34.2			27.3			15.0	3.9
LOS		B			C			C			B	A
Approach Delay		13.0			34.2			27.3			13.9	
Approach LOS		B			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 82.1

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 23.5

Intersection LOS: C

Intersection Capacity Utilization 99.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 36: Yale Rd & Lickman Rd

	ø2		ø4
55 s		45 s	
	ø6		ø8
55 s		45 s	

2007 Chilliwack Transportation Plan
44: Vibe Rd & Yale Rd

PM Peak
2007 Conditions with Recommended Improvements

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (m)	15.0		15.0	15.0	15.0	
Trailing Detector (m)	0.0		0.0	0.0	0.0	
Turning Speed (k/h)	25	15	25			15
Right Turn on Red		Yes				Yes
Link Speed (k/h)	50			50	50	
Link Distance (m)	139.5			356.1	320.6	
Travel Time (s)	10.0			25.6	23.1	
Volume (vph)	166	100	32	1630	1548	73
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phases	4		2	2	6	
Minimum Initial (s)	7.0		10.0	10.0	10.0	
Minimum Split (s)	22.0		21.0	21.0	21.0	
Total Split (s)	22.0	0.0	38.0	38.0	38.0	0.0
Total Split (%)	36.7%	0.0%	63.3%	63.3%	63.3%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Min	Min	Min	
Act Effct Green (s)	15.3		34.8	34.8	34.8	
Actuated g/C Ratio	0.27		0.62	0.62	0.62	
v/c Ratio	0.61		0.27	0.82	0.82	
Control Delay	19.9		12.6	13.3	13.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	19.9		12.6	13.3	13.2	
LOS	B		B	B	B	
Approach Delay	19.9			13.3	13.2	
Approach LOS	B			B	B	
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 56.1						
Natural Cycle: 60						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.82						
Intersection Signal Delay: 13.8				Intersection LOS: B		
Intersection Capacity Utilization 67.1%				ICU Level of Service C		
Analysis Period (min) 15						

Splits and Phases: 44: Vibe Rd & Yale Rd

