

Appendix A

Draft Site Plan

Appendix B

Traffic Data and Data Projections

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 10:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Millbrook
Site #: 1710800001
Intersection: County Rd 10 & Fallis Line
TFR File #: 1
Count date: 25-Apr-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 392

North Entering: 167

North Peds: 0

Peds Cross: $\times$

	Heavys	Trucks	Cars	Totals
North	0	0	0	0
East	1	7	0	8
South	4	155	0	159
Totals	5	162	0	



	Heavys	Trucks	Cars	Totals
North	0	13	212	225
East	0	0	0	0
South	0	0	0	0
Totals	0	13	212	225

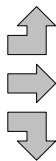
East Leg Total: 0
 East Entering: 0
 East Peds: 0
 Peds Cross: $\times$

Heavys	Trucks	Cars	Totals
0	1	19	20

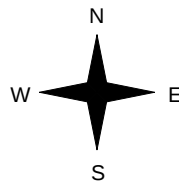


Fallis Line

Heavys	Trucks	Cars	Totals
0	1	9	10
0	0	0	0
0	0	15	15
0	1	24	



County Rd 10



Cars	Trucks	Heavys	Totals
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

Private Driveway



Cars	Trucks	Heavys	Totals
0	0	0	0

Peds Cross: $\times$
 West Peds: 0
 West Entering: 25
 West Leg Total: 45

Cars	Trucks	Heavys	Totals
170	7	0	177



Cars	Trucks	Heavys	Totals
15	0	0	15
203	12	0	215
0	0	0	0
15	12	0	27

Peds Cross: $\times$
 South Peds: 0
 South Entering: 230
 South Leg Total: 407

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 19:00:00

One Hour Peak

From: 16:30:00

To: 17:30:00

Municipality: Millbrook

Site #: 1710800001

Intersection: County Rd 10 & Fallis Line

TFR File #: 1

Count date: 25-Apr-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 415

North Entering: 241

North Peds: 0

Peds Cross: $\nlessgtr$

Heavys	0	0	0	0
Trucks	0	4	0	4
Cars	11	226	0	237
Totals	11	230	0	



Heavys 0

Trucks 0

Cars 174

Totals 174

East Leg Total: 1

East Entering: 0

East Peds: 0

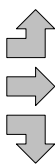
Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	0	30	30

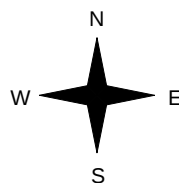


Fallis Line

Heavys	Trucks	Cars	Totals
0	0	4	4
0	0	0	0
0	0	18	18
0	0	22	



County Rd 10



Cars	Trucks	Heavys	Totals
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

Private Driveway



Cars	Trucks	Heavys	Totals
1	0	0	1

Peds Cross: $\nlessgtr$

West Peds: 0

West Entering: 22

West Leg Total: 52

Cars	244	Cars	19	170	1	190
Trucks	4	Trucks	0	0	0	0
Heavys	0	Heavys	0	0	0	0
Totals	248	Totals	19	170	1	



County Rd 10

Peds Cross: $\nlessgtr$

South Peds: 0

South Entering: 190

South Leg Total: 438

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Millbrook
Site #: 1710800001
Intersection: County Rd 10 & Fallis Line
TFR File #: 1
Count date: 25-Apr-17

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 1864
 North Entering: 933
 North Peds: 0
 Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	3	32	35
0	32	866	898
0	35	898	931

Heavys	Trucks	Cars	Totals
0	32	899	931

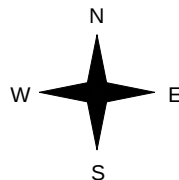
East Leg Total: 3
 East Entering: 1
 East Peds: 0
 Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	5	97	102



Fallis Line

Heavys	Trucks	Cars	Totals
0	2	37	39
0	0	0	0
0	1	87	88
0	3	124	127



County Rd 10

Cars	Trucks	Heavys	Totals
1	0	0	1
0	0	0	0
0	0	0	0
1	0	0	1

Private Driveway

Cars	Trucks	Heavys	Totals
2	0	0	2

Peds Cross: $\nlessgtr$
 West Peds: 1
 West Entering: 127
 West Leg Total: 229

Cars	Trucks	Heavys	Totals
953	33	0	986
65	2	0	67
861	30	0	891
2	0	0	2
928	32	0	960

Peds Cross: $\nlessgtr$
 South Peds: 0
 South Entering: 960
 South Leg Total: 1946

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: County Rd 10 & Fallis Line

Count Date: 25-Apr-17

Municipality: Millbrook

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	138	3	141	0	318	8:00:00	13	164	0	177	0
9:00:00	0	128	5	133	0	329	9:00:00	12	184	0	196	0
10:00:00	0	106	5	111	0	259	10:00:00	8	139	1	148	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	191	7	198	0	374	17:00:00	16	159	1	176	0
18:00:00	0	215	10	225	0	390	18:00:00	13	152	0	165	0
19:00:00	0	120	5	125	0	223	19:00:00	5	93	0	98	0

East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	20	8:00:00	7	0	13	20	0
9:00:00	0	0	0	0	0	23	9:00:00	12	0	11	23	0
10:00:00	0	0	1	1	0	20	10:00:00	7	0	12	19	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	17	17:00:00	2	0	15	17	0
18:00:00	0	0	0	0	0	28	18:00:00	5	0	23	28	0
19:00:00	0	0	0	0	0	20	19:00:00	6	0	14	20	1

Calculated Values for Traffic Crossing Major Street

Hours Ending:	7:00	8:00	9:00	10:00	16:00	17:00	18:00	19:00
Crossing Values:	0	7	12	7	0	2	5	6

Ontario Traffic Inc

Count Date: 25-Apr-17 Site #: 1710800001

Interval Time	Passenger Cars - North Approach				Trucks - North Approach				Heavys - North Approach				Pedestrians							
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	16	16	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
7:30:00	0	0	42	26	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0
7:45:00	0	0	75	33	0	0	0	0	0	6	3	0	0	0	0	0	0	0	0	0
8:00:00	0	0	130	55	2	2	2	0	0	8	2	1	1	0	0	0	0	0	0	0
8:15:00	0	0	164	34	3	1	0	0	0	10	2	1	0	0	0	0	0	0	0	0
8:30:00	0	0	197	33	4	1	0	0	0	10	0	1	0	0	0	0	0	0	0	0
8:45:00	0	0	219	22	4	0	0	0	0	11	1	1	0	0	0	0	0	0	0	0
9:00:00	0	0	252	33	7	3	0	0	0	14	3	1	0	0	0	0	0	0	0	0
9:15:00	0	0	275	23	8	1	0	0	0	17	3	1	0	0	0	0	0	0	0	0
9:30:00	0	0	286	11	9	1	0	0	0	18	1	1	0	0	0	0	0	0	0	0
9:45:00	0	0	314	28	10	1	0	0	0	21	3	2	1	0	0	0	0	0	0	0
10:00:00	0	0	348	34	11	1	0	0	0	24	3	2	0	0	0	0	0	0	0	0
10:00:03	0	0	348	0	11	0	0	0	0	24	0	2	0	0	0	0	0	0	0	0
16:00:00	0	0	348	0	11	0	0	0	0	24	0	2	0	0	0	0	0	0	0	0
16:15:00	0	0	392	44	13	2	0	0	0	25	1	2	0	0	0	0	0	0	0	0
16:30:00	0	0	424	32	15	2	0	0	0	27	2	2	0	0	0	0	0	0	0	0
16:45:00	0	0	477	53	17	2	0	0	0	28	1	2	0	0	0	0	0	0	0	0
17:00:00	0	0	534	57	18	1	0	0	0	29	1	2	0	0	0	0	0	0	0	0
17:15:00	0	0	587	53	24	6	0	0	0	30	1	2	0	0	0	0	0	0	0	0
17:30:00	0	0	650	63	26	2	0	0	0	31	1	2	0	0	0	0	0	0	0	0
17:45:00	0	0	702	52	28	2	0	0	0	31	0	2	0	0	0	0	0	0	0	0
18:00:00	0	0	747	45	28	0	0	0	0	31	0	2	0	0	0	0	0	0	0	0
18:15:00	0	0	781	34	28	0	0	0	0	31	0	3	1	0	0	0	0	0	0	0
18:30:00	0	0	819	38	30	2	0	0	0	31	0	3	0	0	0	0	0	0	0	0
18:45:00	0	0	846	27	32	2	0	0	0	32	1	3	0	0	0	0	0	0	0	0
19:00:00	0	0	866	20	32	0	0	0	0	32	0	3	0	0	0					

Ontario Traffic Inc																				
Count Date: 25-Apr-17 Site #: 1710800001																				
Interval Time	Passenger Cars - East Approach				Trucks - East Approach				Heavyys - East Approach				Pedestrians							
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:03	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00:02	0	0	0	0	1	0	0													

[illegible]

Ontario Traffic Inc

Count Date: 25-Apr-17Site #: 1710800001

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians		
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross		
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15:00	1	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30:00	3	2	0	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45:00	3	0	0	0	11	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
8:00:00	6	3	0	0	13	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15:00	9	3	0	0	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30:00	12	3	0	0	21	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45:00	15	3	0	0	21	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00:00	17	2	0	0	24	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
9:15:00	18	1	0	0	24	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30:00	19	1	0	0	28	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45:00	21	2	0	0	32	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00:00	24	3	0	0	36	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00:03	24	0	0	0	36	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:00:00	24	0	0	0	36	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15:00	25	1	0	0	43	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30:00	26	1	0	0	45	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45:00	26	0	0	0	48	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00:00	26	0	0	0	51	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15:00	28	2	0	0	57	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30:00	30	2	0	0	63	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45:00	30	0	0	0	68	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:00:00	31	1	0	0	74	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:15:00	33	2	0	0	77	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:30:00	34	1	0	0	81	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:45:00	36	2	0	0	82	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1	
19:00:00	37	1	0	0	87	5	2	0	0	0	0	1	1	0	0	0	0	0	1	0	
19:00:02	37	0	0																		

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period

From: 11:00:00

To: 17:00:00

One Hour Peak

From: 12:00:00

To: 13:00:00

Municipality: Millbrook

Site #: 1722900001

Intersection: CR 10 & Fallis Line

TFR File #: 18

Count date: 12-Aug-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 10 runs N/S

North Leg Total: 382

North Entering: 195

North Peds: 0

Peds Cross: 

Heavys	0	0	0
Trucks	0	1	1
Cars	10	184	194
Totals	10	185	



Heavys	0
Trucks	0
Cars	187
Totals	187

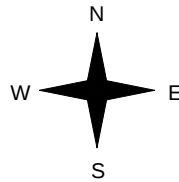
Heavys	Trucks	Cars	Totals
0	0	31	31



CR 10



Fallis Line



Heavys	Trucks	Cars	Totals
0	0	7	7
0	0	18	18
0	0	25	



CR 10

Peds Cross: 

West Peds: 0

West Entering: 25

West Leg Total: 56

Cars	202
Trucks	1
Heavys	0
Totals	203



Cars	21	180	201
Trucks	0	0	0
Heavys	0	0	0
Totals	21	180	

Peds Cross: 

South Peds: 0

South Entering: 201

South Leg Total: 404

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Millbrook
Site #: 1722900001
Intersection: CR 10 & Fallis Line
TFR File #: 18
Count date: 12-Aug-17

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 10 runs N/S

North Leg Total: 2021
 North Entering: 1039
 North Peds: 0
 Peds Cross: 

Heavys	Trucks	Cars	Totals
0	0	0	0
0	9	9	9
59	971	1030	1030
59	980		980

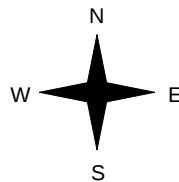
Heavys	Trucks	Cars	Totals
0	9	973	982

Heavys	Trucks	Cars	Totals
0	1	163	164



Fallis Line

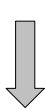
Heavys	Trucks	Cars	Totals
0	0	48	48
0	2	128	130
0	2	176	



CR 10

Peds Cross: 
 West Peds: 1
 West Entering: 178
 West Leg Total: 342

Cars	Trucks	Heavys	Totals
1100	11	0	1111



Cars	Trucks	Heavys	Totals
104	1	0	105
925	9	0	934
1031	10	0	

Peds Cross: 
 South Peds: 0
 South Entering: 1041
 South Leg Total: 2152

Comments

Ontario Traffic Inc.

Traffic Count Summary

Intersection: CR 10 & Fallis Line

Count Date: 12-Aug-17

Municipality: Millbrook

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
11:00:00	0	0	0	0	0	0	11:00:00	0	0	0	0	0
12:00:00	0	158	7	165	0	378	12:00:00	24	188	1	213	0
13:00:00	0	185	10	195	0	396	13:00:00	21	180	0	201	0
14:00:00	0	175	12	187	0	340	14:00:00	13	140	0	153	0
15:00:00	0	146	12	158	0	332	15:00:00	16	157	1	174	0
16:00:00	0	166	7	173	0	329	16:00:00	13	143	0	156	0
17:00:00	0	150	11	161	0	305	17:00:00	18	126	0	144	0

[illegible]

[illegible]

[illegible]

[illegible]

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 10:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Millbrook

Site #: 1710800002

Intersection: County Rd 10 & Larmer Line

TFR File #: 1

Count date: 25-Apr-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 404

North Entering: 167

North Peds: 0

Peds Cross: $\nlessgtr$

Heavys	0	0	0	0
Trucks	2	6	0	8
Cars	1	153	5	159
Totals	3	159	5	



Heavys 0

Trucks 13

Cars 224

Totals 237

East Leg Total: 34

East Entering: 15

East Peds: 0

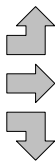
Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	2	9	11

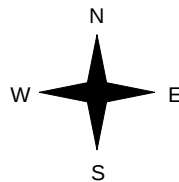


Larmer Line

Heavys	Trucks	Cars	Totals
0	0	23	23
0	0	4	4
0	2	8	10
0	2	35	



County Rd 10



County Rd 10

Cars	Trucks	Heavys	Totals
9	0	0	9
2	0	0	2
4	0	0	4
15	0	0	

Larmer Line



Cars	Trucks	Heavys	Totals
19	0	0	19

Peds Cross: $\nlessgtr$

West Peds: 0

West Entering: 37

West Leg Total: 48

Cars	165
Trucks	8
Heavys	0
Totals	173



Cars	6	192	10	208
Trucks	0	13	0	13
Heavys	0	0	0	0
Totals	6	205	10	

Peds Cross: $\nlessgtr$

South Peds: 0

South Entering: 221

South Leg Total: 394

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 19:00:00

One Hour Peak

From: 16:30:00

To: 17:30:00

Municipality: Millbrook

Site #: 1710800002

Intersection: County Rd 10 & Larmer Line

TFR File #: 1

Count date: 25-Apr-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 413

North Entering: 242

North Peds: 0

Peds Cross: 0

Heavys	0	0	0	0
Trucks	0	3	0	3
Cars	9	222	8	239
Totals	9	225	8	



Heavys 0

Trucks 2

Cars 169

Totals 171

East Leg Total: 21

East Entering: 8

East Peds: 0

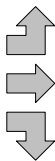
Peds Cross: 0

Heavys	0	0	18	18
--------	---	---	----	----

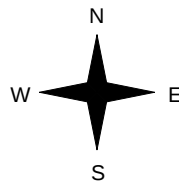


Larmer Line

Heavys	0	0	3	3
Trucks	0	0	1	1
Cars	0	0	6	6
Totals	0	0	10	



County Rd 10



Cars	2	1	0	3
Trucks	1	0	0	1
Heavys	3	1	0	4
Totals	6	2	0	

Larmer Line



Cars	13	0	0	13
------	----	---	---	----

Peds Cross: 0

West Peds: 0

West Entering: 10

West Leg Total: 28

Cars	231	8	164	4	176
Trucks	4	0	1	0	1
Heavys	0	0	0	0	0
Totals	235	8	165	4	



Peds Cross: 0

South Peds: 0

South Entering: 177

South Leg Total: 412

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Millbrook
Site #: 1710800002
Intersection: County Rd 10 & Larmer Line
TFR File #: 1
Count date: 25-Apr-17

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: County Rd 10 runs N/S

North Leg Total: 1872
 North Entering: 947
 North Peds: 0
 Peds Cross: $\nlessgtr$

	Heavys	Trucks	Cars	Totals
North	0	0	0	0
East	4	30	0	34
South	39	842	32	913
Totals	43	872	32	



	Heavys	Trucks	Cars	Totals
North	1	31	893	925

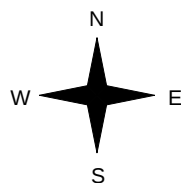
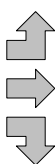
East Leg Total: 134
 East Entering: 62
 East Peds: 0
 Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	4	85	89



Larmer Line

Heavys	Trucks	Cars	Totals
0	1	54	55
0	0	12	12
0	2	42	44
0	3	108	



County Rd 10



Cars	Trucks	Heavys	Totals
31	2	0	33
7	0	0	7
19	3	0	22
57	5	0	

Larmer Line



Cars	Trucks	Heavys	Totals
68	4	0	72

Peds Cross: $\nlessgtr$
 West Peds: 0
 West Entering: 111
 West Leg Total: 200

	Cars	Trucks	Heavys	Totals
West	903	35	0	938



	Cars	Trucks	Heavys	Totals
West	39	0	0	39
East	808	28	1	837
Totals	24	4	0	28
	871	32	1	

Peds Cross: $\nlessgtr$
 South Peds: 0
 South Entering: 904
 South Leg Total: 1842

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: County Rd 10 & Larmer Line						Count Date: 25-Apr-17		Municipality: Millbrook					
North Approach Totals						North/South Total Approaches	South Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	1	125	5	131	0	300	8:00:00	3	162	4	169	0	
9:00:00	6	129	3	138	0	325	9:00:00	6	171	10	187	0	
10:00:00	2	113	3	118	0	254	10:00:00	8	124	4	136	0	
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0	
17:00:00	7	180	6	193	0	358	17:00:00	7	152	6	165	0	
18:00:00	8	209	11	228	0	377	18:00:00	7	140	2	149	0	
19:00:00	8	116	15	139	0	237	19:00:00	8	88	2	98	0	
Totals:						1851	39 837 28 904						0
East Approach Totals						East/West Total Approaches	West Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	4	1	16	21	0	53	8:00:00	22	2	8	32	0	
9:00:00	2	1	3	6	0	36	9:00:00	16	4	10	30	0	
10:00:00	1	1	6	8	0	20	10:00:00	4	1	7	12	0	
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0	
17:00:00	7	0	5	12	0	26	17:00:00	2	2	10	14	0	
18:00:00	2	1	1	4	0	13	18:00:00	2	3	4	9	0	
19:00:00	6	3	2	11	0	25	19:00:00	9	0	5	14	0	
Totals:						173	55 12 44 111						0
Calculated Values for Traffic Crossing Major Street													
Hours Ending:	7:00	8:00	9:00	10:00			16:00	17:00	18:00	19:00			
Crossing Values:	0	28	22	6			0	11	7	18			

Ontario Traffic Inc

Count Date: 25-Apr-17Site #: 1710800002

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	11	11	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0
7:30:00	0	0	34	23	2	2	0	0	2	1	1	0	0	0	0	0	0	0	0	0
7:45:00	1	1	66	32	3	1	0	0	4	2	1	0	0	0	0	0	0	0	0	0
8:00:00	1	0	119	53	3	0	0	0	6	2	2	1	0	0	0	0	0	0	0	0
8:15:00	4	3	151	32	3	0	0	0	8	2	3	1	0	0	0	0	0	0	0	0
8:30:00	5	1	187	36	3	0	0	0	8	0	3	0	0	0	0	0	0	0	0	0
8:45:00	6	1	210	23	3	0	0	0	9	1	3	0	0	0	0	0	0	0	0	0
9:00:00	7	1	242	32	5	2	0	0	12	3	3	0	0	0	0	0	0	0	0	0
9:15:00	7	0	268	26	6	1	0	0	15	3	4	1	0	0	0	0	0	0	0	0
9:30:00	7	0	280	12	6	0	0	0	15	0	4	0	0	0	0	0	0	0	0	0
9:45:00	7	0	305	25	6	0	0	0	19	4	4	0	0	0	0	0	0	0	0	0
10:00:00	9	2	345	40	7	1	0	0	22	3	4	0	0	0	0	0	0	0	0	0
10:05:45	9	0	345	0	7	0	0	0	22	0	4	0	0	0	0	0	0	0	0	0
16:00:00	9	0	345	0	7	0	0	0	22	0	4	0	0	0	0	0	0	0	0	0
16:15:00	10	1	382	37	7	0	0	0	24	2	4	0	0	0	0	0	0	0	0	0
16:30:00	12	2	411	29	9	2	0	0	25	1	4	0	0	0	0	0	0	0	0	0
16:45:00	14	2	458	47	12	3	0	0	25	0	4	0	0	0	0	0	0	0	0	0
17:00:00	16	2	521	63	13	1	0	0	26	1	4	0	0	0	0	0	0	0	0	0
17:15:00	18	2	572	51	16	3	0	0	27	1	4	0	0	0	0	0	0	0	0	0
17:30:00	20	2	633	61	18	2	0	0	28	1	4	0	0	0	0	0	0	0	0	0
17:45:00	21	1	681	48	21	3	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:00:00	24	3	728	47	24	3	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:15:00	27	3	758	30	32	8	0	0	29	1	4	0	0	0	0	0	0	0	0	0
18:30:00	28	1	795	37	33	1	0	0	29	0	4	0	0	0	0	0	0	0	0	0
18:45:00	31	3	820	25	37	4	0	0	30	1	4	0	0	0	0	0	0	0	0	0
19:00:00	32	1	842	22	39	2	0	0	30	0	4	0	0	0	0					

Ontario Traffic Inc

Count Date: 25-Apr-17 Site #: 1710800002

Interval Time	Passenger Cars - East Approach				Trucks - East Approach				Heavys - East Approach				Pedestrians							
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	2	0	0	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	3	1	1	1	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	4	1	1	0	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	4	0	1	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	6	2	2	1	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	6	0	2	0	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	6	0	2	0	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	6	0	2	0	21	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0
9:30:00	6	0	3	1	22	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
9:45:00	6	0	3	0	23	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
10:00:00	6	0	3	0	24	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
10:05:45	6	0	3	0	24	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:00:00	6	0	3	0	24	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:15:00	8	2	3	0	26	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:30:00	9	1	3	0	27	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0
16:45:00	10	1	3	0	27	0	3	1	0	0	2	1	0	0	0	0	0	0	0	0
17:00:00	11	1	3	0	28	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0
17:15:00	12	1	3	0	29	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0
17:30:00	12	0	4	1	29	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
17:45:00	12	0	4	0	29	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
18:00:00	13	1	4	0	29	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
18:15:00	17	4	6	2	30	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0
18:30:00	17	0	6	0	30	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
18:45:00	19	2	6	0	30	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
19:00:00	19	0	7	1	31	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0
19:05:10	19	0	7	0																

Ontario Traffic Inc

Count Date: 25-Apr-17 Site #: 1710800002

Interval Time	Passenger Cars - South Approach				Trucks - South Approach				Heavys - South Approach				Pedestrians							
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	24	24	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
7:30:00	1	1	54	30	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0
7:45:00	1	0	102	48	1	1	0	0	4	4	2	0	0	0	0	0	0	0	0	0
8:00:00	3	2	155	53	2	1	0	0	7	3	2	0	0	0	0	0	0	0	0	0
8:15:00	5	2	199	44	5	3	0	0	11	4	2	0	0	0	0	0	0	0	0	0
8:30:00	7	2	246	47	10	5	0	0	13	2	2	0	0	0	0	0	0	0	0	0
8:45:00	9	2	286	40	11	1	0	0	15	2	2	0	0	0	0	0	0	0	0	0
9:00:00	9	0	315	29	11	0	0	0	18	3	3	1	0	0	0	0	0	0	0	0
9:15:00	10	1	340	25	12	1	0	0	18	0	3	0	0	0	0	0	0	0	0	0
9:30:00	12	2	364	24	12	0	0	0	21	3	3	0	0	0	0	0	0	0	0	0
9:45:00	14	2	398	34	13	1	0	0	23	2	4	1	0	0	0	0	0	0	0	0
10:00:00	17	3	431	33	14	1	0	0	26	3	4	0	0	0	0	0	0	0	0	0
10:05:45	17	0	431	0	14	0	0	0	26	0	4	0	0	0	0	0	0	0	0	0
16:00:00	17	0	431	0	14	0	0	0	26	0	4	0	0	0	0	0	0	0	0	0
16:15:00	19	2	465	34	14	0	0	0	27	1	4	0	0	0	0	0	0	0	0	0
16:30:00	20	1	504	39	16	2	0	0	27	0	4	0	0	0	0	0	0	0	0	0
16:45:00	23	3	550	46	17	1	0	0	27	0	4	0	0	0	0	0	0	0	0	0
17:00:00	24	1	581	31	20	3	0	0	28	1	4	0	0	0	0	0	0	0	0	0
17:15:00	27	3	640	59	20	0	0	0	28	0	4	0	0	0	0	0	0	0	0	0
17:30:00	28	1	668	28	20	0	0	0	28	0	4	0	0	0	0	0	0	0	0	0
17:45:00	30	2	691	23	22	2	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:00:00	31	1	721	30	22	0	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:15:00	32	1	755	34	22	0	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:30:00	36	4	776	21	23	1	0	0	28	0	4	0	0	0	0	0	0	0	0	0
18:45:00	38	2	793	17	24	1	0	0	28	0	4	0	0	0	1	1	0	0	0	0
19:00:00	39	1	808	15	24	0	0	0	28	0	4									

Ontario Traffic Inc

Count Date: 25-Apr-17Site #: 1710800002

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians		
	Left			Thru			Right			Left			Thru			Right			West Cross		
	Cum	Incr		Cum	Incr		Cum	Incr		Cum	Incr		Cum	Incr		Cum	Incr		Cum	Incr	
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	6	6	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	8	2	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	16	8	0	0	0	5	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
8:00:00	22	6	2	2	2	7	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0
8:15:00	28	6	2	0	0	11	4	0	0	0	0	2	1	0	0	0	0	0	0	0	0
8:30:00	31	3	4	2	2	12	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
8:45:00	35	4	5	1	1	13	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
9:00:00	38	3	6	1	1	16	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0
9:15:00	38	0	7	1	1	18	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
9:30:00	39	1	7	0	0	18	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
9:45:00	41	2	7	0	0	20	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
10:00:00	42	1	7	0	0	23	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0
10:05:45	42	0	7	0	0	23	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
16:00:00	42	0	7	0	0	23	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
16:15:00	42	0	8	1	28	5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
16:30:00	42	0	9	1	30	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
16:45:00	44	2	9	0	33	3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:00:00	44	0	9	0	33	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:15:00	44	0	9	0	36	3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:30:00	45	1	10	1	36	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:45:00	46	1	11	1	37	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:00:00	46	0	12	1	37	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:15:00	52	6	12	0	39	2	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0
18:30:00	54	2	12	0	41	2	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:45:00	54	0	12	0	42	1	1	0	0	0	0	2	0	0							

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period

From: 11:00:00

To: 17:00:00

One Hour Peak

From: 12:00:00

To: 13:00:00

Municipality: Millbrook
Site #: 1722900002
Intersection: CR 10 & Larmer Line
TFR File #: 1
Count date: 12-Aug-17

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 10 runs N/S

North Leg Total: 385

North Entering: 197

North Peds: 0

Peds Cross: 0

	Heavys	Trucks	Cars	Totals
North	0	0	0	0
East	0	2	0	2
South	12	179	4	195
Totals	12	181	4	



	Heavys	Trucks	Cars	Totals
North	0	1	187	188

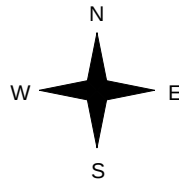
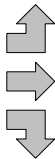
East Leg Total: 30
 East Entering: 17
 East Peds: 5
 Peds Cross: 0

Heavys	Trucks	Cars	Totals
0	0	30	30



Larmer Line

Heavys	Trucks	Cars	Totals
0	0	14	14
0	0	3	3
0	0	10	10
0	0	27	



CR 10



Cars	Trucks	Heavys	Totals
4	0	0	4
6	0	0	6
7	0	0	7
17	0	0	

Larmer Line



Cars	Trucks	Heavys	Totals
13	0	0	13

Peds Cross: 0
 West Peds: 0
 West Entering: 27
 West Leg Total: 57

	Cars	Trucks	Heavys	Totals
West	196	2	0	198



	Cars	Trucks	Heavys	Totals
West	12	0	0	12
East	169	1	0	170
Totals	12	1	0	

Peds Cross: 0
 South Peds: 0
 South Entering: 188
 South Leg Total: 386

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Millbrook
Site #: 1722900002
Intersection: CR 10 & Larmer Line
TFR File #: 1
Count date: 12-Aug-17

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: CR 10 runs N/S

North Leg Total: 2027
 North Entering: 1044
 North Peds: 0
 Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	0	0	0
0	10	0	10
59	943	32	1034
59	953	32	

Heavys	Trucks	Cars	Totals
0	14	969	983

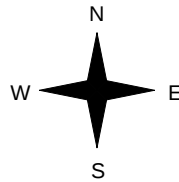
East Leg Total: 169
 East Entering: 85
 East Peds: 5
 Peds Cross: $\nlessgtr$

Heavys	Trucks	Cars	Totals
0	0	160	160



Larmer Line

Heavys	Trucks	Cars	Totals
0	0	75	75
0	0	22	22
0	0	54	54
0	0	151	



CR 10



Cars	Trucks	Heavys	Totals
33	2	0	35
27	0	0	27
22	1	0	23
82	3	0	

Larmer Line



Cars	Trucks	Heavys	Totals
84	0	0	84

Peds Cross: $\nlessgtr$
 West Peds: 0
 West Entering: 151
 West Leg Total: 311

Cars	Trucks	Heavys	Totals
1019	11	0	1030



Cars	Trucks	Heavys	Totals
74	0	0	74
861	12	0	873
30	0	0	30
965	12	0	

Peds Cross: $\nlessgtr$
 South Peds: 0
 South Entering: 977
 South Leg Total: 2007

Comments

Ontario Traffic Inc.

Traffic Count Summary

Intersection: CR 10 & Larmer Line

Count Date: 12-Aug-17

Municipality: Millbrook

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
11:00:00	0	0	0	0	0	0	11:00:00	0	0	0	0	0
12:00:00	2	152	7	161	0	357	12:00:00	7	185	4	196	0
13:00:00	4	181	12	197	0	385	13:00:00	12	170	6	188	0
14:00:00	5	177	9	191	0	336	14:00:00	14	124	7	145	0
15:00:00	8	149	7	164	0	330	15:00:00	15	146	5	166	0
16:00:00	10	154	11	175	0	322	16:00:00	11	128	8	147	0
17:00:00	3	140	13	156	0	289	17:00:00	15	118	0	133	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	11:00	12:00	13:00	14:00	15:00	16:00	17:00	17:00
Crossing Values:	0	21	27	21	15	21	24	24

[illegible]

Ontario Traffic Inc.

Count Date:

12-Aug-17

Site #:

1722900002

Interval Time	Passenger Cars - East Approach				Trucks - East Approach				Heavyys - East Approach				Pedestrians	
	Left		Thru		Right		Left		Thru		Right			
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
11:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0
11:45:00	0	0	2	2	5	3	0	0	0	0	0	0	0	0
12:00:00	0	0	3	1	5	0	0	0	1	1	0	0	0	0
12:15:00	2	2	4	1	5	0	0	0	0	0	0	0	0	0
12:30:00	3	1	5	1	8	3	0	0	0	0	1	0	0	5
12:45:00	3	0	7	2	9	1	0	0	0	0	1	0	0	5
13:00:00	7	4	9	2	9	0	0	0	0	0	1	0	0	5
13:15:00	7	0	10	1	12	3	0	0	0	0	2	1	0	5
13:30:00	8	1	12	2	12	0	0	0	0	0	2	0	0	5
13:45:00	9	1	13	1	14	2	0	0	0	0	2	0	0	5
14:00:00	9	0	14	1	15	1	0	0	0	0	2	0	0	5
14:15:00	10	1	16	2	17	2	0	0	0	0	2	0	0	5
14:30:00	11	1	17	1	18	1	0	0	0	0	2	0	0	5
14:45:00	12	1	19	2	22	4	0	0	0	0	2	0	0	5
15:00:00	13	1	20	1	24	2	0	0	0	0	2	0	0	5
15:15:00	15	2	21	1	26	2	0	0	0	0	2	0	0	5
15:30:00	19	4	22	1	27	1	0	0	0	0	2	0	0	5
15:45:00	21	2	24	2	27	0	0	0	0	0	2	0	0	5
16:00:00	21	0	24	0	27	0	0	0	0	0	2	0	0	5
16:15:00	21	0	24	0	29	2	1	1	0	0	2	0	0	5
16:30:00	22	1	25	1	29	0	1	0	0	0	2	0	0	5
16:45:00	22	0	27	2	32	3	1	0	0	0	2	0	0	5
17:00:00	22	0	27	0	33	1	1	0	0	0	2	0	0	5
17:00:51	22	0	27	0	33	0	1	0	0	0	2	0	0	5

[illegible]

[illegible]

REGISTERED AND PROJECTED VOLUMES

Volumes at AM and PM Peak Hours															
CR10 / Larmer Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2017	AM	23	4	10	6	205	10	4	2	9	5	159	3	Registered Volumes
April	2017	PM	3	1	6	8	165	4	4	1	3	8	225	9	
August	2017	SAT	14	3	10	12	170	6	7	6	4	4	181	12	
Annual Growth Rate 2.00%															
	2021	AM	25	4	11	6	222	11	4	2	10	5	172	3	Existing Volumes (Projected)
	2021	PM	3	1	6	9	179	4	4	1	3	9	244	10	
	2021	SAT	15	3	11	13	184	6	8	6	4	4	196	13	
		AM	0	0	0	0	103	6	2	0	0	0	34	0	Tower Hills South Trips
		PM	0	0	0	0	67	4	6	0	0	0	115	0	
		SAT	0	0	0	0	81	5	5	0	0	0	94	0	
		AM	0	0	6	3	1	3	4	0	0	0	2	0	Millbrook Community Centre
		PM	0	0	8	8	3	3	4	0	0	0	2	0	
		SAT	0	0	4	3	1	3	3	0	0	0	1	0	
	2021	AM	25	4	17	9	326	20	10	2	10	5	208	3	Total Existing Volumes
	2021	PM	3	1	14	17	249	11	14	1	3	9	361	10	
	2021	SAT	15	3	15	16	266	14	16	6	4	4	291	13	
	2025	AM	27	5	12	7	240	12	5	2	11	6	186	4	Background Volumes (Projected)
	2025	PM	4	1	7	9	193	5	5	1	4	9	264	11	
	2025	SAT	16	4	12	14	199	7	8	7	5	5	212	14	
		AM	0	0	6	3	104	9	6	0	0	0	36	0	Tower Hills South & M. Community Centre
		PM	0	0	8	8	70	7	10	0	0	0	117	0	
		SAT	0	0	4	3	82	8	8	0	0	0	95	0	
		AM	0	0	17	25	187	20	14	0	0	0	0	0	Development "A" & School
		PM	0	0	20	13	122	8	13	0	0	0	0	0	
		SAT	0	0	19	17	178	12	12	0	0	0	0	0	
		AM	0	0	0	0	31	0	0	0	0	0	48	0	Development "B"
		PM	0	0	0	0	65	0	0	0	0	0	27	0	
		SAT	0	0	0	0	60	0	0	0	0	0	61	0	
		AM	0	0	2	1	87	5	1	0	0	0	19	0	Development "C" 50%
		PM	0	0	3	4	55	2	3	0	0	0	92	0	
		SAT	0	0	4	4	71	4	4	0	0	0	72	0	
	2025	AM	27	5	37	36	649	46	26	2	11	6	289	4	Total Background Volumes 2025
	2025	PM	4	1	38	34	505	22	31	1	4	9	500	11	
	2025	SAT	16	4	39	38	590	31	32	7	5	5	440	14	
Annual Growth Rate 2.00%															
	2030	AM	30	5	13	8	265	13	5	3	12	6	206	4	Background Volumes (Projected)
	2030	PM	4	1	8	10	213	5	5	1	4	10	291	12	
	2030	SAT	18	4	13	16	220	8	9	8	5	5	234	16	
		AM	0	0	6	3	104	9	6	0	0	0	36	0	Tower Hills South & M. Community Centre
		PM	0	0	8	8	70	7	10	0	0	0	117	0	
		SAT	0	0	4	3	82	8	8	0	0	0	95	0	
		AM	0	0	17	25	218	20	14	0	0	0	48	0	Developments "A", "B"
		PM	0	0	20	13	187	8	13	0	0	0	27	0	
		SAT	0	0	19	17	238	12	12	0	0	0	61	0	
		AM	0	0	3	3	174	9	3	0	0	0	39	0	Development "C" 100%
		PM	0	0	7	8	111	4	7	0	0	0	182	0	
		SAT	0	0	7	8	141	8	8	0	0	0	145	0	
	2030	AM	30	5	39	39	761	51	28	3	12	6	329	4	Total Background Volumes 2030
	2030	PM	4	1	43	39	581	24	35	1	4	10	617	12	
	2030	SAT	18	4	43	44	681	36	37	8	5	5	535	16	

REGISTERED AND PROJECTED VOLUMES

Volumes at AM and PM Peak Hours															
CR10 / Fallis Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2017	AM	10	0	15	15	215	0	0	0	0	0	162	5	Registered Volumes
April	2017	PM	4	0	18	19	170	1	0	0	0	0	230	11	
August	2017	SAT	7	0	18	21	180	0	0	0	0	0	185	10	
Annual Growth Rate 2.00%															
	2021	AM	11	0	16	16	233	0	0	0	0	0	175	5	Existing Volumes (Projected)
	2021	PM	4	0	19	21	184	1	0	0	0	0	249	12	
	2021	SAT	8	0	19	23	195	0	0	0	0	0	200	11	
		AM	109	0	49	16	0	0	0	0	0	0	0	36	Tower Hills South Trips
		PM	71	0	32	55	0	0	0	0	0	0	0	121	
		SAT	86	0	38	45	0	0	0	0	0	0	0	99	
		AM	7	0	0	14	6	0	0	0	0	0	3	0	Millbrook Community Centre
		PM	14	0	0	14	6	0	0	0	0	0	6	1	
		SAT	7	0	0	8	5	0	0	0	0	0	2	0	
	2021	AM	127	0	65	46	239	0	0	0	0	0	178	41	Total Existing Volumes
	2021	PM	89	0	51	90	190	1	0	0	0	0	255	134	
	2021	SAT	101	0	57	76	200	0	0	0	0	0	202	110	
	2025	AM	12	0	18	18	252	0	0	0	0	0	190	6	Background Volumes (Projected)
	2025	PM	5	0	21	22	199	1	0	0	0	0	269	13	
	2025	SAT	8	0	21	25	211	0	0	0	0	0	217	12	
		AM	116	0	49	30	6	0	0	0	0	0	3	36	Tower Hills South & M. Community Centre
		PM	85	0	32	69	6	0	0	0	0	0	6	122	
		SAT	93	0	38	53	5	0	0	0	0	0	2	99	
		AM	70	0	128	95	9	0	0	0	0	0	26	44	Development "A" & School
		PM	35	0	60	76	28	0	0	0	0	0	16	56	
		SAT	53	0	82	82	25	0	0	0	0	0	25	50	
		AM	31	0	25	23	0	0	0	0	0	0	0	48	Development "B"
		PM	77	0	35	31	-12	0	0	0	0	0	-12	27	
		SAT	60	0	75	40	0	0	0	0	0	0	0	61	
		AM	93	0	49	25	0	0	0	0	0	0	0	22	Development "C" 50%
		PM	61	0	36	65	0	0	0	0	0	0	0	98	
		SAT	79	0	44	55	0	0	0	0	0	0	0	80	
	2025	AM	322	0	269	191	267	0	0	0	0	0	219	156	Total Background Volumes 2025
	2025	PM	263	0	184	263	221	1	0	0	0	0	279	316	
	2025	SAT	293	0	260	255	241	0	0	0	0	0	244	302	
Annual Growth Rate 2.00%															
	2030	AM	13	0	19	19	278	0	0	0	0	0	210	6	Background Volumes (Projected)
	2030	PM	5	0	23	25	220	1	0	0	0	0	298	14	
	2030	SAT	9	0	23	27	233	0	0	0	0	0	239	13	
		AM	116	0	49	30	6	0	0	0	0	0	3	36	Tower Hills South & M. Community Centre
		PM	85	0	32	69	6	0	0	0	0	0	6	122	
		SAT	93	0	38	53	5	0	0	0	0	0	2	99	
		AM	101	0	153	118	9	0	0	0	0	0	26	92	Developments "A", "B"
		PM	112	0	95	107	16	0	0	0	0	0	4	83	
		SAT	113	0	157	122	25	0	0	0	0	0	25	111	
		AM	186	0	98	50	0	0	0	0	0	0	0	45	Development "C" 100%
		PM	123	0	72	131	0	0	0	0	0	0	0	196	
		SAT	157	0	87	111	0	0	0	0	0	0	0	160	
	2030	AM	416	0	319	217	293	0	0	0	0	0	239	179	Total Background Volumes 2030
	2030	PM	325	0	222	332	242	1	0	0	0	0	308	415	
	2030	SAT	372	0	305	313	263	0	0	0	0	0	266	383	

REGISTERED AND PROJECTED VOLUMES

Volumes at AM and PM Peak Hours															
CR10 / Centennial Lane			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2017	AM													Registered Volumes
April	2017	PM													
August	2017	SAT													
Annual Growth Rate 2.00%															
	2021	AM	25	1	27	16	209	9	10	1	15	18	145	28	Existing Volumes (Projected)
	2021	PM	11	1	12	4	180	14	8	1	15	20	240	8	
	2021	SAT	5	1	6	2	198	14	7	1	15	15	197	7	
		AM	0	0	0	0	16	0	0	0	0	0	49	0	Tower Hills South Trips
		PM	0	0	0	0	55	0	0	0	0	0	32	0	
		SAT	0	0	0	0	45	0	0	0	0	0	38	0	
		AM	0	0	0	0	20	0	0	0	0	0	10	0	Millbrook Community Centre
		PM	0	0	0	0	20	0	0	0	0	0	20	0	
		SAT	0	0	0	0	13	0	0	0	0	0	9	0	
	2021	AM	25	1	27	16	245	9	10	1	15	18	204	28	Total Existing Volumes
	2021	PM	11	1	12	4	255	14	8	1	15	20	292	8	
	2021	SAT	5	1	6	2	256	14	7	1	15	15	244	7	
	2025	AM	27	1	29	17	226	10	11	1	16	19	157	30	Background Volumes (Projected)
	2025	PM	12	1	13	4	195	15	9	1	16	22	260	9	
	2025	SAT	5	1	6	2	214	15	8	1	16	16	213	8	
		AM	0	0	0	0	188	0	0	0	0	0	280	0	Other Developments
		PM	0	0	0	0	263	0	0	0	0	0	173	0	
		SAT	0	0	0	0	260	0	0	0	0	0	266	0	
	2025	AM	27	1	29	17	414	10	11	1	16	19	437	30	Total Background Volumes 2025
	2025	PM	12	1	13	4	458	15	9	1	16	22	433	9	
	2025	SAT	5	1	6	2	474	15	8	1	16	16	479	8	
Annual Growth Rate 2.00%															
	2030	AM	30	1	32	19	250	11	12	1	18	22	173	33	Background Volumes (Projected)
	2030	PM	13	1	14	5	215	17	10	1	18	24	287	10	
	2030	SAT	6	1	7	2	237	17	8	1	18	18	235	8	
		AM	0	0	0	0	213	0	0	0	0	0	329	0	Other Developments
		PM	0	0	0	0	329	0	0	0	0	0	209	0	
		SAT	0	0	0	0	316	0	0	0	0	0	309	0	
	2030	AM	30	1	32	19	463	11	12	1	18	22	502	33	Total Background Volumes 2030
	2030	PM	13	1	14	5	544	17	10	1	18	24	496	10	
	2030	SAT	6	1	7	2	553	17	8	1	18	18	544	8	

REGISTERED AND PROJECTED VOLUMES

Volumes at AM and PM Peak Hours															
CR10 / CR21 / Distillery			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
July	2018	AM	34	28	1	2	9	6	6	33	78	62	11	50	Registered Volumes
July	2018	PM	80	65	3	2	24	14	8	48	103	184	8	86	
July	2018	SAT													
Annual Growth Rate 2.00%															
	2021	AM	36	30	1	2	10	6	6	35	83	66	12	53	Existing Volumes (Projected)
	2021	PM	85	69	3	2	25	15	8	51	109	195	8	91	
	2021	SAT	32	27	1	2	9	5	5	31	73	76	15	60	
		AM	5	0	0	0	1	0	0	0	10	25	2	22	Tower Hills South Trips
		PM	21	0	0	0	6	0	0	0	28	21	1	10	
		SAT	13	0	0	0	3	0	0	0	29	19	4	15	
		AM	6	0	0	0	1	0	0	0	13	5	1	4	Millbrook Community Centre
		PM	8	0	0	0	2	0	0	0	1	13	1	6	
		SAT	4	0	0	0	1	0	0	0	8	5	0	4	
	2021	AM	47	30	1	2	12	6	6	35	106	96	15	79	Total Existing Volumes
	2021	PM	114	69	3	2	33	15	8	51	138	229	10	107	
	2021	SAT	49	27	1	2	13	5	5	31	110	100	19	79	
	2025	AM	39	32	1	2	10	7	7	38	90	71	13	57	Background Volumes (Projected)
	2025	PM	92	75	3	2	28	16	9	55	118	211	9	99	
	2025	SAT	35	29	1	2	10	5	5	34	79	82	16	65	
		AM	53	0	0	0	15	0	0	0	120	140	22	118	Other Developments
		PM	105	0	0	0	32	0	0	0	126	114	5	54	
		SAT	75	0	0	0	18	0	0	0	166	136	24	106	
	2025	AM	92	32	1	2	25	7	7	38	210	211	35	175	Total Background Volumes 2025
	2025	PM	197	75	3	2	59	16	9	55	245	326	14	152	
	2025	SAT	110	29	1	2	28	5	5	34	245	218	40	171	
Annual Growth Rate 2.00%															
	2030	AM	43	36	1	3	11	8	8	42	99	79	14	63	Background Volumes (Projected)
	2030	PM	101	82	4	3	30	18	10	61	131	233	10	109	
	2030	SAT	38	32	1	2	11	6	6	37	87	91	18	72	
		AM	60	0	0	0	17	0	0	0	136	165	26	138	Other Developments
		PM	132	0	0	0	39	0	0	0	158	138	6	65	
		SAT	92	0	0	0	22	0	0	0	202	158	28	124	
	2030	AM	103	36	1	3	28	8	8	42	235	243	40	202	Total Background Volumes 2030
	2030	PM	233	82	4	3	70	18	10	61	289	371	16	174	
	2030	SAT	130	32	1	2	33	6	6	37	289	248	46	195	

Appendix C

Synchro Reports

Existing Conditions Year 2025

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Existing Volumes - 2021

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	4	17	10	2	10	6	326	20	5	208	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	4	18	11	2	11	7	354	22	5	226	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	629	628	228	638	618	365	229			376		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	629	628	228	638	618	365	229			376		
tC, single (s)	7.1	6.5	6.4	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.5	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	99	98	97	99	98	100			100		
cM capacity (veh/h)	384	396	769	374	401	680	1339			1182		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	50	24	383	235								
Volume Left	27	11	7	5								
Volume Right	18	11	22	3								
cSH	473	474	1339	1182								
Volume to Capacity	0.11	0.05	0.00	0.00								
Queue Length 95th (m)	2.7	1.2	0.1	0.1								
Control Delay (s)	13.5	13.0	0.2	0.2								
Lane LOS	B	B	A	A								
Approach Delay (s)	13.5	13.0	0.2	0.2								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			31.5%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

6: Fallis Line & CR10

Existing Volumes - 2021

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	127	0	65	0	0	0	46	239	0	0	178	41
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	138	0	71	0	0	0	50	260	0	0	193	45
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	553	553	193	589	598	260	238			260		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	553	553	193	589	598	260	238			260		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	68	100	92	100	100	100	96			100		
cM capacity (veh/h)	431	424	848	374	400	779	1329			1305		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	209	0	50	260	193	45						
Volume Left	138	0	50	0	0	0						
Volume Right	71	0	0	0	0	45						
cSH	651	1700	1329	1700	1305	1700						
Volume to Capacity	0.32	0.00	0.04	0.15	0.00	0.03						
Queue Length 95th (m)	10.5	0.0	0.9	0.0	0.0	0.0						
Control Delay (s)	14.7	0.0	7.8	0.0	0.0	0.0						
Lane LOS	B	A	A									
Approach Delay (s)	14.7	0.0	1.3		0.0							
Approach LOS	B	A										
Intersection Summary												
Average Delay			4.6									
Intersection Capacity Utilization			39.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Existing Volumes - 2021
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	1	27	10	1	15	16	245	9	18	204	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	1	29	11	1	16	17	266	10	20	222	30
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	599	587	237	612	597	271	252			276		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	599	587	237	612	597	271	252			276		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.4			2.2		
p0 queue free %	93	100	96	97	100	98	99			98		
cM capacity (veh/h)	395	409	802	381	404	767	1215			1287		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	58	28	293	272								
Volume Left	27	11	17	20								
Volume Right	29	16	10	30								
cSH	533	539	1215	1287								
Volume to Capacity	0.11	0.05	0.01	0.02								
Queue Length 95th (m)	2.7	1.3	0.3	0.4								
Control Delay (s)	12.6	12.1	0.6	0.7								
Lane LOS	B	B	A	A								
Approach Delay (s)	12.6	12.1	0.6	0.7								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			29.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Existing Volumes - 2021
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	47	30	1	6	35	106	2	12	6	96	15	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	33	1	7	38	115	2	13	7	104	16	86
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	85	160	22	104	102							
Volume Left (vph)	51	7	2	104	0							
Volume Right (vph)	1	115	7	0	86							
Hadj (s)	0.18	-0.36	-0.13	0.55	-0.54							
Departure Headway (s)	4.8	4.2	4.7	5.6	4.5							
Degree Utilization, x	0.11	0.19	0.03	0.16	0.13							
Capacity (veh/h)	702	808	713	608	753							
Control Delay (s)	8.4	8.2	7.8	8.5	7.0							
Approach Delay (s)	8.4	8.2	7.8	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.0									
HCM Level of Service			A									
Intersection Capacity Utilization			34.9%			ICU Level of Service			A			
Analysis Period (min)			15									

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	14.4	17.9	11.9	16.1	13.2
Average Queue (m)	10.2	11.5	5.9	11.6	10.3
95th Queue (m)	14.9	20.2	14.5	16.9	14.9
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				4	3
Queuing Penalty (veh)				4	3

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Existing Volumes - 2021

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	1	14	14	1	3	17	249	11	9	361	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	15	15	1	3	18	271	12	10	392	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	735	737	398	747	736	277	403			283		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	735	737	398	747	736	277	403			283		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	98	95	100	100	98			99		
cM capacity (veh/h)	327	338	652	315	338	762	1155			1280		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	20	301	413								
Volume Left	3	15	18	10								
Volume Right	15	3	12	11								
cSH	536	351	1155	1280								
Volume to Capacity	0.04	0.06	0.02	0.01								
Queue Length 95th (m)	0.9	1.3	0.4	0.2								
Control Delay (s)	12.0	15.9	0.6	0.3								
Lane LOS	B	C	A	A								
Approach Delay (s)	12.0	15.9	0.6	0.3								
Approach LOS	B	C										
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			32.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

6: Fallis Line & CR10

Existing Volumes - 2021
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	0	51	0	0	0	90	190	1	0	255	134
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	0	55	0	0	0	98	207	1	0	277	146
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	679	680	277	708	826	207	423			208		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	679	680	277	708	826	207	423			208		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	100	93	100	100	100	91			100		
cM capacity (veh/h)	341	341	762	303	281	833	1136			1363		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	152	0	98	208	277	146						
Volume Left	97	0	98	0	0	0						
Volume Right	55	0	0	1	0	146						
cSH	537	1700	1136	1700	1363	1700						
Volume to Capacity	0.28	0.00	0.09	0.12	0.00	0.09						
Queue Length 95th (m)	8.8	0.0	2.1	0.0	0.0	0.0						
Control Delay (s)	16.2	0.0	8.5	0.0	0.0	0.0						
Lane LOS	C	A	A									
Approach Delay (s)	16.2	0.0	2.7		0.0							
Approach LOS	C	A										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			38.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Existing Volumes - 2021

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	1	12	8	1	15	4	255	14	20	292	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1	13	9	1	16	4	277	15	22	317	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	676	666	322	672	663	285	326			292		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	676	666	322	672	663	285	326			292		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	98	98	100	98	100			98		
cM capacity (veh/h)	353	372	719	356	374	754	1234			1269		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	26	26	297	348								
Volume Left	12	9	4	22								
Volume Right	13	16	15	9								
cSH	475	533	1234	1269								
Volume to Capacity	0.05	0.05	0.00	0.02								
Queue Length 95th (m)	1.3	1.2	0.1	0.4								
Control Delay (s)	13.0	12.1	0.1	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	13.0	12.1	0.1	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			37.5%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Existing Volumes - 2021
PM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	114	69	3	8	51	138	2	33	15	229	10	107							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	124	75	3	9	55	150	2	36	16	249	11	116							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	202	214	54	249	127														
Volume Left (vph)	124	9	2	249	0														
Volume Right (vph)	3	150	16	0	116														
Hadj (s)	0.15	-0.38	-0.14	0.53	-0.61														
Departure Headway (s)	5.5	5.0	5.6	6.2	5.1														
Degree Utilization, x	0.31	0.30	0.08	0.43	0.18														
Capacity (veh/h)	610	669	563	552	672														
Control Delay (s)	11.0	10.1	9.1	12.7	8.0														
Approach Delay (s)	11.0	10.1	9.1	11.1															
Approach LOS	B	B	A	B															
Intersection Summary																			
Delay				10.7															
HCM Level of Service				B															
Intersection Capacity Utilization				51.1%	ICU Level of Service	A													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	18.5	17.6	12.0	27.4	18.0
Average Queue (m)	13.8	12.5	9.2	19.0	11.2
95th Queue (m)	20.9	18.9	15.1	29.8	19.9
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				15	4
Queuing Penalty (veh)				18	9

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Existing Volumes - 2021

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	3	15	16	6	4	16	266	14	4	291	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	3	16	17	7	4	17	289	15	4	316	14
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	671	671	323	682	671	297	330			304		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	671	671	323	682	671	297	330			304		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	99	98	95	98	99	99			100		
cM capacity (veh/h)	358	371	718	349	371	743	1229			1256		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	36	28	322	335								
Volume Left	16	17	17	4								
Volume Right	16	4	15	14								
cSH	466	386	1229	1256								
Volume to Capacity	0.08	0.07	0.01	0.00								
Queue Length 95th (m)	1.9	1.8	0.3	0.1								
Control Delay (s)	13.4	15.1	0.6	0.1								
Lane LOS	B	C	A	A								
Approach Delay (s)	13.4	15.1	0.6	0.1								
Approach LOS	B	C										
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			34.5%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 6: Fallis Line & CR10

Existing Volumes - 2021
SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	0	57	0	0	0	76	200	0	0	202	110
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	0	62	0	0	0	83	217	0	0	220	120
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	602	602	220	633	722	217	339			217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	602	602	220	633	722	217	339			217		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	100	92	100	100	100	93			100		
cM capacity (veh/h)	390	385	820	344	329	822	1220			1352		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	172	0	83	217	220	120						
Volume Left	110	0	83	0	0	0						
Volume Right	62	0	0	0	0	120						
cSH	610	1700	1220	1700	1352	1700						
Volume to Capacity	0.28	0.00	0.07	0.13	0.00	0.07						
Queue Length 95th (m)	8.7	0.0	1.7	0.0	0.0	0.0						
Control Delay (s)	14.9	0.0	8.2	0.0	0.0	0.0						
Lane LOS	B	A	A									
Approach Delay (s)	14.9	0.0	2.2		0.0							
Approach LOS	B	A										
Intersection Summary												
Average Delay			4.0									
Intersection Capacity Utilization			36.8%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 9: School Access & CR10 & Centennial Rd

Existing Volumes - 2021
SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	1	6	7	1	15	2	256	14	15	244	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	7	8	1	16	2	278	15	16	265	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	609	599	269	599	596	286	273			293		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	609	599	269	599	596	286	273			293		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	98	100	98	100			99		
cM capacity (veh/h)	393	409	770	405	411	753	1290			1268		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	25	296	289								
Volume Left	5	8	2	16								
Volume Right	7	16	15	8								
cSH	523	580	1290	1268								
Volume to Capacity	0.02	0.04	0.00	0.01								
Queue Length 95th (m)	0.6	1.0	0.0	0.3								
Control Delay (s)	12.1	11.5	0.1	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	12.1	11.5	0.1	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			33.5%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Existing Volumes - 2021
SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	27	1	5	31	110	2	13	5	100	19	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	29	1	5	34	120	2	14	5	109	21	86
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	84	159	22	109	107							
Volume Left (vph)	53	5	2	109	0							
Volume Right (vph)	1	120	5	0	86							
Hadj (s)	0.15	-0.41	-0.10	0.53	-0.53							
Departure Headway (s)	4.8	4.2	4.7	5.6	4.5							
Degree Utilization, x	0.11	0.18	0.03	0.17	0.13							
Capacity (veh/h)	703	813	708	611	753							
Control Delay (s)	8.4	8.1	7.9	8.6	7.1							
Approach Delay (s)	8.4	8.1	7.9	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.0									
HCM Level of Service			A									
Intersection Capacity Utilization			35.1%			ICU Level of Service			A			
Analysis Period (min)			15									

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	9.3	15.2	9.2	17.0	22.2
Average Queue (m)	8.9	11.4	4.3	11.1	13.3
95th Queue (m)	11.9	17.2	11.6	18.0	23.0
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				4	5
Queuing Penalty (veh)				4	5

Appendix D

Synchro Reports

Background Horizon Year 2025

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2025

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	5	37	26	2	11	36	649	46	6	289	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	5	40	28	2	12	39	705	50	7	314	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1151	1163	316	1181	1140	730	318			755		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1151	1163	316	1181	1140	730	318			755		
tC, single (s)	7.1	6.5	6.4	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.5	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	97	94	81	99	97	97			99		
cM capacity (veh/h)	164	187	684	149	193	422	1242			855		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	75	42	795	325								
Volume Left	29	28	39	7								
Volume Right	40	12	50	4								
cSH	281	185	1242	855								
Volume to Capacity	0.27	0.23	0.03	0.01								
Queue Length 95th (m)	8.0	6.5	0.7	0.2								
Control Delay (s)	22.4	30.2	0.8	0.3								
Lane LOS	C	D	A	A								
Approach Delay (s)	22.4	30.2	0.8	0.3								
Approach LOS	C	D										
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			66.6%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis6: Fallis Line & CR10

Background Volumes - 2025

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	322	0	269	0	0	0	191	267	0	0	219	156
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	350	0	292	0	0	0	208	290	0	0	238	170
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	943	943	238	1090	1113	290	408			290		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	943	943	238	1090	1113	290	408			290		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	63	100	100	100	82			100		
cM capacity (veh/h)	209	215	801	105	171	749	1151			1272		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	642	0	208	290	238	170						
Volume Left	350	0	208	0	0	0						
Volume Right	292	0	0	0	0	170						
cSH	322	1700	1151	1700	1272	1700						
Volume to Capacity	1.99	0.00	0.18	0.17	0.00	0.10						
Queue Length 95th (m)	344.5	0.0	5.0	0.0	0.0	0.0						
Control Delay (s)	484.4	0.0	8.8	0.0	0.0	0.0						
Lane LOS	F	A	A									
Approach Delay (s)	484.4	0.0	3.7		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			202.2									
Intersection Capacity Utilization			53.4%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Background Volumes - 2025

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	1	29	11	1	16	17	414	10	19	437	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	1	32	12	1	17	18	450	11	21	475	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1043	1030	491	1057	1041	455	508			461		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1043	1030	491	1057	1041	455	508			461		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.4			2.2		
p0 queue free %	85	100	95	94	100	97	98			98		
cM capacity (veh/h)	195	225	577	186	221	605	971			1100		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	62	30	479	528								
Volume Left	29	12	18	21								
Volume Right	32	17	11	33								
cSH	295	310	971	1100								
Volume to Capacity	0.21	0.10	0.02	0.02								
Queue Length 95th (m)	5.9	2.5	0.4	0.4								
Control Delay (s)	20.4	17.9	0.6	0.5								
Lane LOS	C	C	A	A								
Approach Delay (s)	20.4	17.9	0.6	0.5								
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			43.5%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Background Volumes - 2025
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	92	32	1	7	38	210	2	25	7	211	35	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	100	35	1	8	41	228	2	27	8	229	38	190
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	136	277	37	229	228							
Volume Left (vph)	100	8	2	229	0							
Volume Right (vph)	1	228	8	0	190							
Hadj (s)	0.21	-0.42	-0.08	0.55	-0.54							
Departure Headway (s)	5.8	4.9	5.7	6.2	5.1							
Degree Utilization, x	0.22	0.38	0.06	0.40	0.32							
Capacity (veh/h)	581	688	552	556	674							
Control Delay (s)	10.3	10.9	9.1	12.0	9.4							
Approach Delay (s)	10.3	10.9	9.1	10.7								
Approach LOS	B	B	A	B								
Intersection Summary												
Delay			10.6									
HCM Level of Service			B									
Intersection Capacity Utilization			50.5%			ICU Level of Service			A			
Analysis Period (min)			15									

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	23.4	17.6	13.6	17.4	21.3
Average Queue (m)	13.1	15.2	5.9	13.5	14.8
95th Queue (m)	23.1	20.0	16.0	19.5	23.0
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				9	8
Queuing Penalty (veh)				20	16

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2025

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	1	38	31	1	4	34	505	22	9	500	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	41	34	1	4	37	549	24	10	543	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1209	1216	549	1246	1210	561	555			573		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1209	1216	549	1246	1210	561	555			573		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	92	75	99	99	96			99		
cM capacity (veh/h)	152	173	535	133	174	527	1015			1000		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	47	39	610	565								
Volume Left	4	34	37	10								
Volume Right	41	4	24	12								
cSH	417	147	1015	1000								
Volume to Capacity	0.11	0.27	0.04	0.01								
Queue Length 95th (m)	2.9	7.7	0.9	0.2								
Control Delay (s)	14.7	38.3	1.0	0.3								
Lane LOS	B	E	A	A								
Approach Delay (s)	14.7	38.3	1.0	0.3								
Approach LOS	B	E										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			62.1%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

6: Fallis Line & CR10

Background Volumes - 2025

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	263	0	184	0	0	0	263	221	1	0	279	316
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	286	0	200	0	0	0	286	240	1	0	303	343
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1115	1116	303	1216	1459	241	647			241		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1115	1116	303	1216	1459	241	647			241		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	73	100	100	100	70			100		
cM capacity (veh/h)	141	144	736	88	90	798	939			1325		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	486	0	286	241	303	343						
Volume Left	286	0	286	0	0	0						
Volume Right	200	0	0	1	0	343						
cSH	215	1700	939	1700	1325	1700						
Volume to Capacity	2.26	0.00	0.30	0.14	0.00	0.20						
Queue Length 95th (m)	293.6	0.0	9.8	0.0	0.0	0.0						
Control Delay (s)	619.4	0.0	10.5	0.0	0.0	0.0						
Lane LOS	F	A	B									
Approach Delay (s)	619.4	0.0	5.7		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			183.1									
Intersection Capacity Utilization			53.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Background Volumes - 2025

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1	13	9	1	16	4	458	15	22	433	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	1	14	10	1	17	4	498	16	24	471	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1056	1046	476	1053	1043	506	480			514		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1056	1046	476	1053	1043	506	480			514		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	98	95	100	97	100			98		
cM capacity (veh/h)	192	222	589	195	223	566	1082			1051		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	28	518	504								
Volume Left	13	10	4	24								
Volume Right	14	17	16	10								
cSH	292	329	1082	1051								
Volume to Capacity	0.10	0.09	0.00	0.02								
Queue Length 95th (m)	2.4	2.1	0.1	0.5								
Control Delay (s)	18.6	17.0	0.1	0.7								
Lane LOS	C	C	A	A								
Approach Delay (s)	18.6	17.0	0.1	0.7								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			47.8%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Background Volumes - 2025
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	197	75	3	9	55	245	2	59	16	326	14	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	214	82	3	10	60	266	2	64	17	354	15	165
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	299	336	84	354	180							
Volume Left (vph)	214	10	2	354	0							
Volume Right (vph)	3	266	17	0	165							
Hadj (s)	0.17	-0.44	-0.09	0.53	-0.61							
Departure Headway (s)	6.6	5.9	7.1	7.2	6.0							
Degree Utilization, x	0.55	0.55	0.17	0.71	0.30							
Capacity (veh/h)	509	572	419	484	574							
Control Delay (s)	17.2	16.1	11.5	24.7	10.4							
Approach Delay (s)	17.2	16.1	11.5	19.9								
Approach LOS	C	C	B	C								
Intersection Summary												
Delay			17.7									
HCM Level of Service			C									
Intersection Capacity Utilization			68.2%			ICU Level of Service			C			
Analysis Period (min)			15									

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	20.9	24.8	15.9	23.9	16.5
Average Queue (m)	16.8	17.5	10.6	18.7	12.4
95th Queue (m)	24.8	27.5	16.5	26.3	18.3
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				21	7
Queuing Penalty (veh)				34	22

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2025

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	4	39	32	7	5	38	590	31	5	440	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	4	42	35	8	5	41	641	34	5	478	15
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1247	1254	486	1282	1245	658	493			675		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1247	1254	486	1282	1245	658	493			675		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	97	93	72	95	99	96			99		
cM capacity (veh/h)	139	164	581	125	166	464	1070			916		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	64	48	716	499								
Volume Left	17	35	41	5								
Volume Right	42	5	34	15								
cSH	285	142	1070	916								
Volume to Capacity	0.22	0.34	0.04	0.01								
Queue Length 95th (m)	6.4	10.4	0.9	0.1								
Control Delay (s)	21.2	42.6	1.0	0.2								
Lane LOS	C	E	A	A								
Approach Delay (s)	21.2	42.6	1.0	0.2								
Approach LOS	C	E										
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			69.2%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

6: Fallis Line & CR10

Background Volumes - 2025

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	293	0	260	0	0	0	255	241	0	0	244	302
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	318	0	283	0	0	0	277	262	0	0	265	328
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1082	1082	265	1223	1410	262	593			262		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1082	1082	265	1223	1410	262	593			262		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	63	100	100	100	72			100		
cM capacity (veh/h)	153	156	773	77	99	777	983			1302		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	601	0	277	262	265	328						
Volume Left	318	0	277	0	0	0						
Volume Right	283	0	0	0	0	328						
cSH	249	1700	983	1700	1302	1700						
Volume to Capacity	2.42	0.00	0.28	0.15	0.00	0.19						
Queue Length 95th (m)	370.1	0.0	8.8	0.0	0.0	0.0						
Control Delay (s)	681.4	0.0	10.1	0.0	0.0	0.0						
Lane LOS	F	A	B									
Approach Delay (s)	681.4	0.0	5.2		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			237.8									
Intersection Capacity Utilization			53.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial

Background Volumes - 2025

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	1	6	8	1	16	2	474	15	16	479	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	7	9	1	17	2	515	16	17	521	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1105	1096	525	1095	1092	523	529			532		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1105	1096	525	1095	1092	523	529			532		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	99	95	99	97	100			98		
cM capacity (veh/h)	179	209	552	186	211	554	1038			1036		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	27	534	547								
Volume Left	5	9	2	17								
Volume Right	7	17	16	9								
cSH	275	326	1038	1036								
Volume to Capacity	0.05	0.08	0.00	0.02								
Queue Length 95th (m)	1.1	2.1	0.0	0.4								
Control Delay (s)	18.7	17.1	0.1	0.5								
Lane LOS	C	C	A	A								
Approach Delay (s)	18.7	17.1	0.1	0.5								
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			47.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Background Volumes - 2025
SAT Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	110	29	1	5	34	245	2	28	5	218	40	171							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	120	32	1	5	37	266	2	30	5	237	43	186							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	152	309	38	237	229														
Volume Left (vph)	120	5	2	237	0														
Volume Right (vph)	1	266	5	0	186														
Hadj (s)	0.19	-0.48	-0.04	0.53	-0.53														
Departure Headway (s)	5.8	4.9	5.9	6.3	5.3														
Degree Utilization, x	0.25	0.42	0.06	0.42	0.33														
Capacity (veh/h)	574	688	525	545	656														
Control Delay (s)	10.7	11.5	9.3	12.6	9.7														
Approach Delay (s)	10.7	11.5	9.3	11.2															
Approach LOS	B	B	A	B															
Intersection Summary																			
Delay				11.1															
HCM Level of Service				B															
Intersection Capacity Utilization				53.6%	ICU Level of Service	A													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	15.2	30.0	10.5	20.0	21.0
Average Queue (m)	12.0	17.2	7.1	15.2	15.1
95th Queue (m)	17.6	32.2	14.0	22.4	22.7
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				11	9
Queuing Penalty (veh)				22	20

Appendix E

Synchro Reports

Background Horizon Year 2030

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2030

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	5	39	28	3	12	39	761	51	6	329	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	5	42	30	3	13	42	827	55	7	358	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1327	1340	360	1358	1315	855	362			883		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1327	1340	360	1358	1315	855	362			883		
tC, single (s)	7.1	6.5	6.4	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.5	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	96	93	72	98	96	96			99		
cM capacity (veh/h)	121	146	646	111	151	358	1197			766		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	80	47	925	368								
Volume Left	33	30	42	7								
Volume Right	42	13	55	4								
cSH	216	140	1197	766								
Volume to Capacity	0.37	0.33	0.04	0.01								
Queue Length 95th (m)	12.3	10.2	0.8	0.2								
Control Delay (s)	31.2	43.0	0.9	0.3								
Lane LOS	D	E	A	A								
Approach Delay (s)	31.2	43.0	0.9	0.3								
Approach LOS	D	E										
Intersection Summary												
Average Delay			3.9									
Intersection Capacity Utilization			75.6%		ICU Level of Service					D		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis6: Fallis Line & CR10

Background Volumes - 2030

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	416	0	319	0	0	0	217	293	0	0	239	179
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	452	0	347	0	0	0	236	318	0	0	260	195
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1050	1050	260	1223	1245	318	454			318		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1050	1050	260	1223	1245	318	454			318		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	55	100	100	100	79			100		
cM capacity (veh/h)	171	179	779	72	137	722	1106			1242		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	799	0	236	318	260	195						
Volume Left	452	0	236	0	0	0						
Volume Right	347	0	0	0	0	195						
cSH	261	1700	1106	1700	1242	1700						
Volume to Capacity	3.06	0.00	0.21	0.19	0.00	0.11						
Queue Length 95th (m)	Err	0.0	6.1	0.0	0.0	0.0						
Control Delay (s)	Err	0.0	9.1	0.0	0.0	0.0						
Lane LOS	F	A	A									
Approach Delay (s)	Err	0.0	3.9		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			4420.5									
Intersection Capacity Utilization			61.0%			ICU Level of Service				B		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Background Volumes - 2030

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	1	32	12	1	18	19	463	11	22	502	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	1	35	13	1	20	21	503	12	24	546	36
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1182	1168	564	1197	1180	509	582			515		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1182	1168	564	1197	1180	509	582			515		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.4			2.2		
p0 queue free %	79	99	93	91	99	97	98			98		
cM capacity (veh/h)	155	185	525	146	182	564	910			1050		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	68	34	536	605								
Volume Left	33	13	21	24								
Volume Right	35	20	12	36								
cSH	242	259	910	1050								
Volume to Capacity	0.28	0.13	0.02	0.02								
Queue Length 95th (m)	8.6	3.4	0.5	0.5								
Control Delay (s)	25.7	21.0	0.6	0.6								
Lane LOS	D	C	A	A								
Approach Delay (s)	25.7	21.0	0.6	0.6								
Approach LOS	D	C										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			48.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Background Volumes - 2030
AM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	103	36	1	8	42	235	3	28	8	243	40	202							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	112	39	1	9	46	255	3	30	9	264	43	220							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	152	310	42	264	263														
Volume Left (vph)	112	9	3	264	0														
Volume Right (vph)	1	255	9	0	220														
Hadj (s)	0.21	-0.42	-0.07	0.55	-0.54														
Departure Headway (s)	6.0	5.2	6.0	6.4	5.3														
Degree Utilization, x	0.25	0.44	0.07	0.47	0.39														
Capacity (veh/h)	555	661	516	541	653														
Control Delay (s)	11.1	12.2	9.5	13.8	10.4														
Approach Delay (s)	11.1	12.2	9.5	12.1															
Approach LOS	B	B	A	B															
Intersection Summary																			
Delay				11.9															
HCM Level of Service				B															
Intersection Capacity Utilization				54.9%	ICU Level of Service	A													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	18.7	25.6	13.6	18.4	17.3
Average Queue (m)	13.1	16.6	6.7	14.4	15.3
95th Queue (m)	19.9	27.0	16.4	20.8	19.9
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				10	10
Queuing Penalty (veh)				23	24

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2030

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	1	43	35	1	4	39	581	24	10	617	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	47	38	1	4	42	632	26	11	671	13
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1433	1441	677	1476	1435	645	684			658		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1433	1441	677	1476	1435	645	684			658		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	99	90	57	99	99	95			99		
cM capacity (veh/h)	105	125	453	89	126	472	909			930		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	52	43	700	695								
Volume Left	4	38	42	11								
Volume Right	47	4	26	13								
cSH	340	98	909	930								
Volume to Capacity	0.15	0.45	0.05	0.01								
Queue Length 95th (m)	4.1	14.3	1.1	0.3								
Control Delay (s)	17.5	68.7	1.2	0.3								
Lane LOS	C	F	A	A								
Approach Delay (s)	17.5	68.7	1.2	0.3								
Approach LOS	C	F										
Intersection Summary												
Average Delay			3.3									
Intersection Capacity Utilization			69.9%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis6: Fallis Line & CR10

Background Volumes - 2030

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	325	0	222	0	0	0	332	242	1	0	308	415
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	353	0	241	0	0	0	361	263	1	0	335	451
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1320	1321	335	1441	1771	264	786			264		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1320	1321	335	1441	1771	264	786			264		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	66	100	100	100	57			100		
cM capacity (veh/h)	89	89	707	48	47	775	833			1300		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	595	0	361	264	335	451						
Volume Left	353	0	361	0	0	0						
Volume Right	241	0	0	1	0	451						
cSH	138	1700	833	1700	1300	1700						
Volume to Capacity	4.32	0.00	0.43	0.16	0.00	0.27						
Queue Length 95th (m)	Err	0.0	16.8	0.0	0.0	0.0						
Control Delay (s)	Err	0.0	12.6	0.0	0.0	0.0						
Lane LOS	F	A	B									
Approach Delay (s)	Err	0.0	7.3		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			2966.7									
Intersection Capacity Utilization			62.6%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Background Volumes - 2030

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	1	14	10	1	18	5	544	17	24	496	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	1	15	11	1	20	5	591	18	26	539	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1228	1217	545	1224	1214	601	550			610		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1228	1217	545	1224	1214	601	550			610		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	99	97	93	99	96	99			97		
cM capacity (veh/h)	144	175	539	147	176	501	1020			969		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	30	32	615	576								
Volume Left	14	11	5	26								
Volume Right	15	20	18	11								
cSH	230	265	1020	969								
Volume to Capacity	0.13	0.12	0.01	0.03								
Queue Length 95th (m)	3.4	3.0	0.1	0.6								
Control Delay (s)	23.0	20.4	0.1	0.7								
Lane LOS	C	C	A	A								
Approach Delay (s)	23.0	20.4	0.1	0.7								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			52.3%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis12: King St (CR21) & CR10

Background Volumes - 2030

PM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	233	82	4	10	61	289	3	70	18	371	16	174							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	253	89	4	11	66	314	3	76	20	403	17	189							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	347	391	99	403	207														
Volume Left (vph)	253	11	3	403	0														
Volume Right (vph)	4	314	20	0	189														
Hadj (s)	0.17	-0.44	-0.08	0.53	-0.61														
Departure Headway (s)	7.2	6.6	8.1	7.8	6.7														
Degree Utilization, x	0.69	0.71	0.22	0.88	0.38														
Capacity (veh/h)	476	522	384	452	530														
Control Delay (s)	25.0	24.1	13.4	43.9	12.5														
Approach Delay (s)	25.0	24.1	13.4	33.3															
Approach LOS	D	C	B	D															
Intersection Summary																			
Delay				27.5															
HCM Level of Service				D															
Intersection Capacity Utilization				76.3%	ICU Level of Service	D													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	33.0	40.3	14.9	28.0	21.3
Average Queue (m)	25.2	22.1	10.4	20.5	13.8
95th Queue (m)	43.4	41.6	16.4	29.9	22.4
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				23	8
Queuing Penalty (veh)				43	31

HCM Unsignalized Intersection Capacity Analysis

3: Larmer Line & CR10

Background Volumes - 2030

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	4	43	37	8	5	44	681	36	5	535	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	4	47	40	9	5	48	740	39	5	582	17
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1466	1476	590	1505	1465	760	599			779		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1466	1476	590	1505	1465	760	599			779		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	96	91	52	93	99	95			99		
cM capacity (veh/h)	95	119	507	84	121	406	978			838		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	71	54	827	604								
Volume Left	20	40	48	5								
Volume Right	47	5	39	17								
cSH	211	97	978	838								
Volume to Capacity	0.34	0.56	0.05	0.01								
Queue Length 95th (m)	10.6	19.7	1.2	0.1								
Control Delay (s)	30.5	82.2	1.3	0.2								
Lane LOS	D	F	A	A								
Approach Delay (s)	30.5	82.2	1.3	0.2								
Approach LOS	D	F										
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			80.0%	ICU Level of Service					D			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 6: Fallis Line & CR10

Background Volumes - 2030
SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	372	0	305	0	0	0	313	263	0	0	266	383
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	404	0	332	0	0	0	340	286	0	0	289	416
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1255	1255	289	1421	1672	286	705			286		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1255	1255	289	1421	1672	286	705			286		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	56	100	100	100	62			100		
cM capacity (veh/h)	104	106	750	45	59	753	893			1276		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	736	0	340	286	289	416						
Volume Left	404	0	340	0	0	0						
Volume Right	332	0	0	0	0	416						
cSH	171	1700	893	1700	1276	1700						
Volume to Capacity	4.31	0.00	0.38	0.17	0.00	0.24						
Queue Length 95th (m)	Err	0.0	13.7	0.0	0.0	0.0						
Control Delay (s)	Err	0.0	11.5	0.0	0.0	0.0						
Lane LOS	F	A	B									
Approach Delay (s)	Err	0.0	6.2		0.0							
Approach LOS	F	A										
Intersection Summary												
Average Delay			3560.9									
Intersection Capacity Utilization			62.0%		ICU Level of Service					B		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Background Volumes - 2030

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	1	7	8	1	18	2	553	17	18	544	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1	8	9	1	20	2	601	18	20	591	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1270	1259	596	1258	1254	610	600			620		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1270	1259	596	1258	1254	610	600			620		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	99	98	94	99	96	100			98		
cM capacity (veh/h)	136	167	504	142	168	494	977			961		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	29	622	620								
Volume Left	7	9	2	20								
Volume Right	8	20	18	9								
cSH	219	274	977	961								
Volume to Capacity	0.07	0.11	0.00	0.02								
Queue Length 95th (m)	1.7	2.7	0.1	0.5								
Control Delay (s)	22.7	19.7	0.1	0.5								
Lane LOS	C	C	A	A								
Approach Delay (s)	22.7	19.7	0.1	0.5								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			52.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Background Volumes - 2030
SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	130	32	1	6	37	289	2	33	6	248	46	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	141	35	1	7	40	314	2	36	7	270	50	212
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	177	361	45	270	262							
Volume Left (vph)	141	7	2	270	0							
Volume Right (vph)	1	314	7	0	212							
Hadj (s)	0.19	-0.48	-0.04	0.53	-0.53							
Departure Headway (s)	6.2	5.2	6.4	6.6	5.5							
Degree Utilization, x	0.30	0.52	0.08	0.50	0.40							
Capacity (veh/h)	544	658	481	522	623							
Control Delay (s)	11.8	13.7	9.9	14.8	11.0							
Approach Delay (s)	11.8	13.7	9.9	12.9								
Approach LOS	B	B	A	B								
Intersection Summary												
Delay			12.9									
HCM Level of Service			B									
Intersection Capacity Utilization			59.5%			ICU Level of Service			B			
Analysis Period (min)			15									

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	17.5	26.2	9.3	20.7	20.9
Average Queue (m)	11.7	17.9	8.0	16.0	16.1
95th Queue (m)	17.8	33.1	12.9	23.5	22.1
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				11	11
Queuing Penalty (veh)				27	26

Appendix F

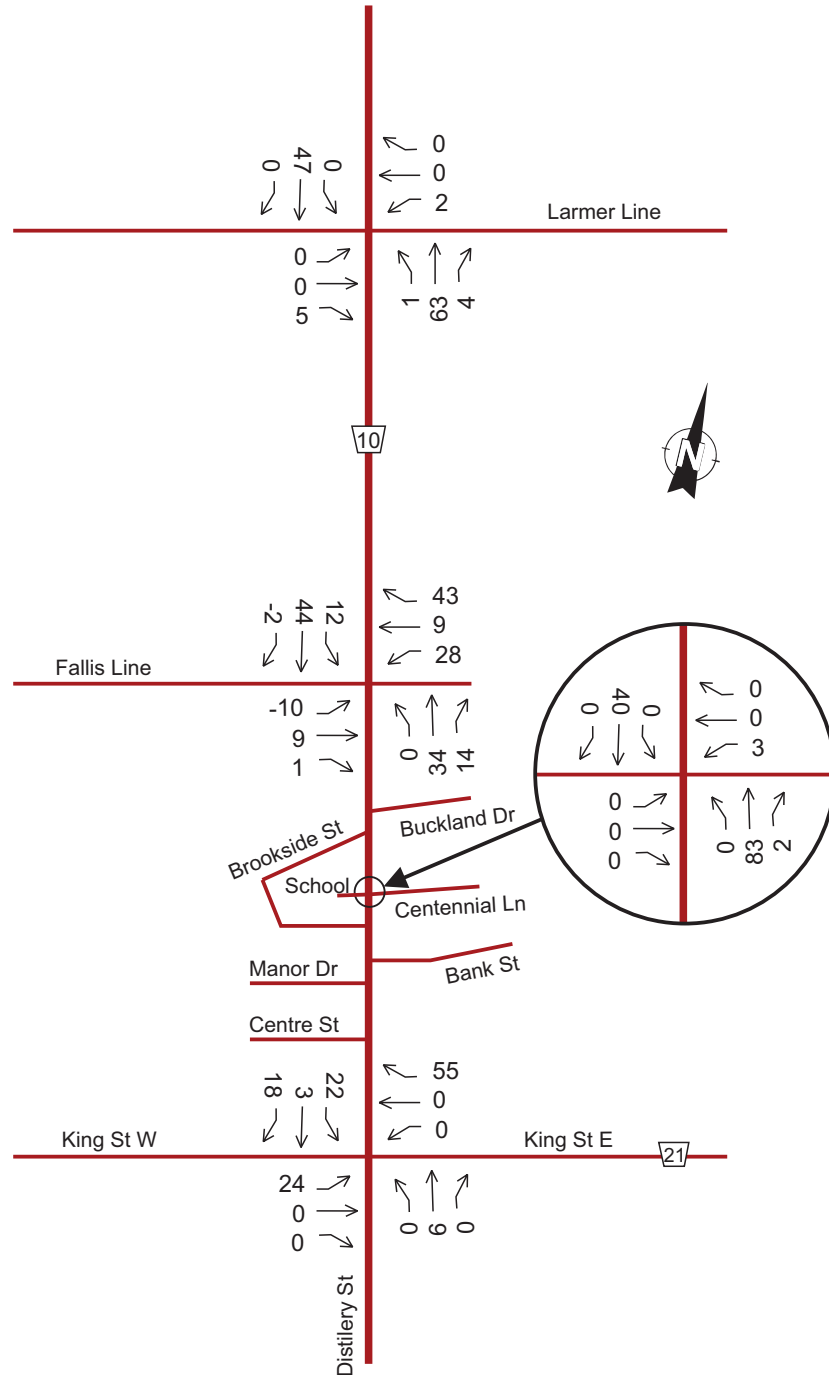
Trip Distribution Process

		Commercial Development - East of CR10 - 2025																	
		Ac Access				Bc Access				Cc Access				Dc Access					
		IN		OUT		IN		OUT		IN		OUT		IN		OUT		Total	
		EBR	WBL	NBL	NBR	EBR	WBL	NBL	NBR	NBR	SBL	WBL	WBR	NBR	SBL	WBL	WBR	Ins	Outs
AM	Distribution	2%	2%	4%	2%	11%	3%	24%	3%	29%	18%	13%	25%	21%	14%	10%	19%	100%	100%
	Pass By Trips	1	1	3	1	8	2	16	2	20	12	9	17	14	10	7	13	69	69
	New Trips	3	3	3	2	14	4	19	2	38	24	10	19	28	18	8	15	131	77
	Total Trips	4	4	6	3	22	6	35	4	58	36	19	36	42	28	15	28	200	146
PM	Distribution	2%	2%	4%	2%	13%	3%	24%	3%	26%	20%	20%	18%	19%	15%	15%	14%	100%	100%
	Pass By Trips	2	2	3	2	11	3	20	3	22	17	17	15	16	13	13	12	83	83
	New Trips	3	3	7	3	17	4	40	5	34	26	33	30	25	20	25	23	130	166
	Total Trips	4	4	10	5	28	6	60	7	56	43	50	45	41	32	37	35	214	250
SAT	Distribution	2%	2%	5%	2%	12%	3%	24%	3%	27%	19%	19%	19%	21%	14%	14%	14%	100%	100%
	Pass By Trips	2	2	5	2	12	3	24	3	27	19	19	19	21	14	14	14	102	102
	New Trips	4	4	9	4	23	6	42	5	51	36	33	33	40	27	25	25	189	175
	Total Trips	6	6	14	6	35	9	66	8	79	55	53	53	61	41	39	39	291	277

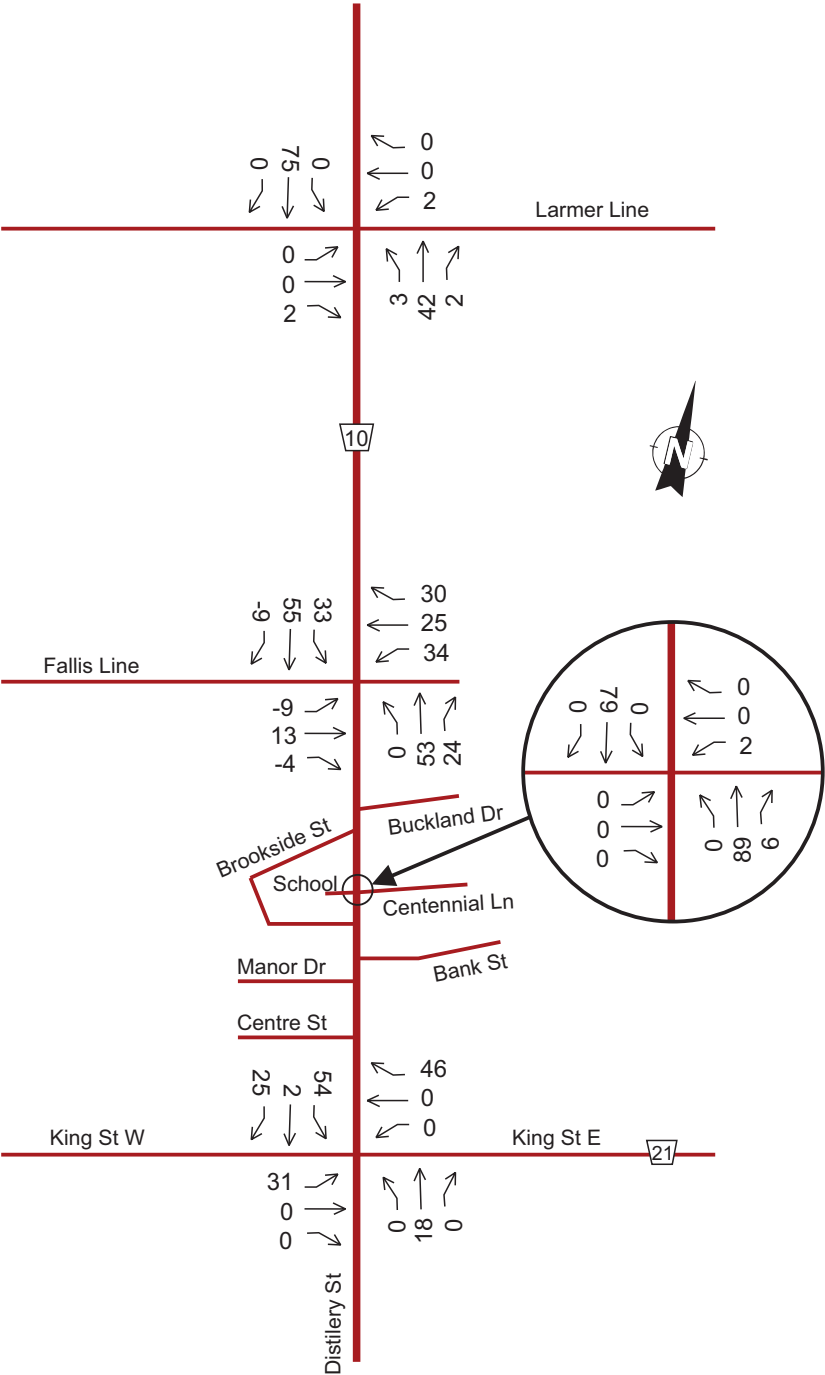
		Residential Development - East of CR10 - 2025															
		AR Access				BR Access				CR Access							
		IN		OUT		IN		OUT		IN		OUT		Total			
		EBR	WBL	NBL	NBR	EBR	WBL	NBL	NBR	NBR	SBL	WBL	WBR	Ins	Outs		
AM	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	5	0	15	0	11	0	34	0	2	0	3	0	17	52		
PM	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	15	0	9	0	35	0	22	0	6	0	2	0	56	33		
SAT	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	13	0	12	0	29	0	28	0	5	0	3	0	47	43		

		Residential Development - East of CR10 - 2030															
		AR Access				BR Access				CR Access							
		IN		OUT		IN		OUT		IN		OUT		Total			
		EBR	WBL	NBL	NBR	EBR	WBL	NBL	NBR	NBR	SBL	WBL	WBR	Ins	Outs		
AM	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	9	0	29	0	22	0	68	0	3	0	6	0	34	104		
PM	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	30	0	19	0	70	0	44	0	11	0	4	0	112	67		
SAT	Distribution	27%	0%	28%	0%	63%	0%	66%	0%	10%	0%	6%	0%	100%	100%		
	Total Trips	25	0	24	0	59	0	57	0	9	0	5	0	94	86		

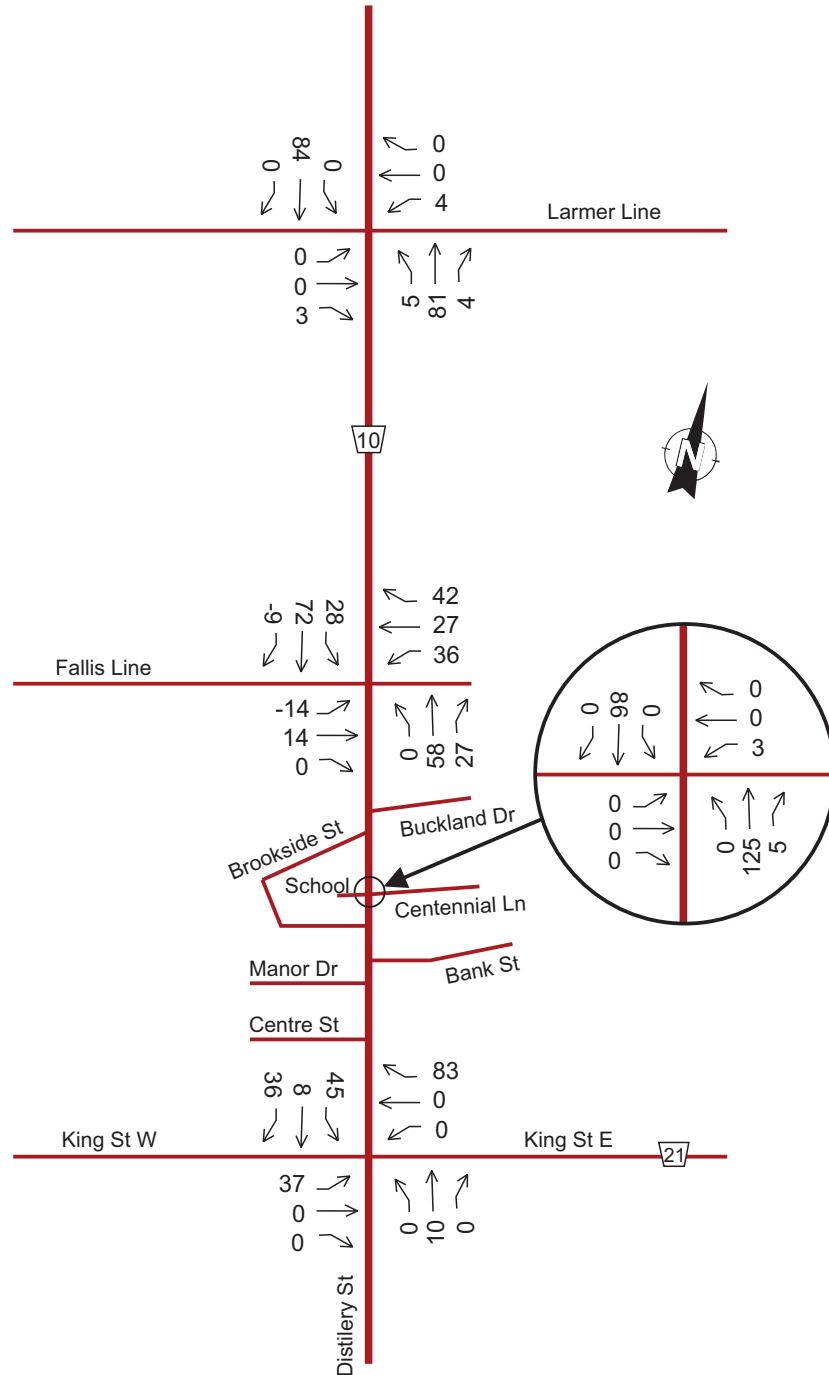
AM Peak Hour - Developments Trips - 2025



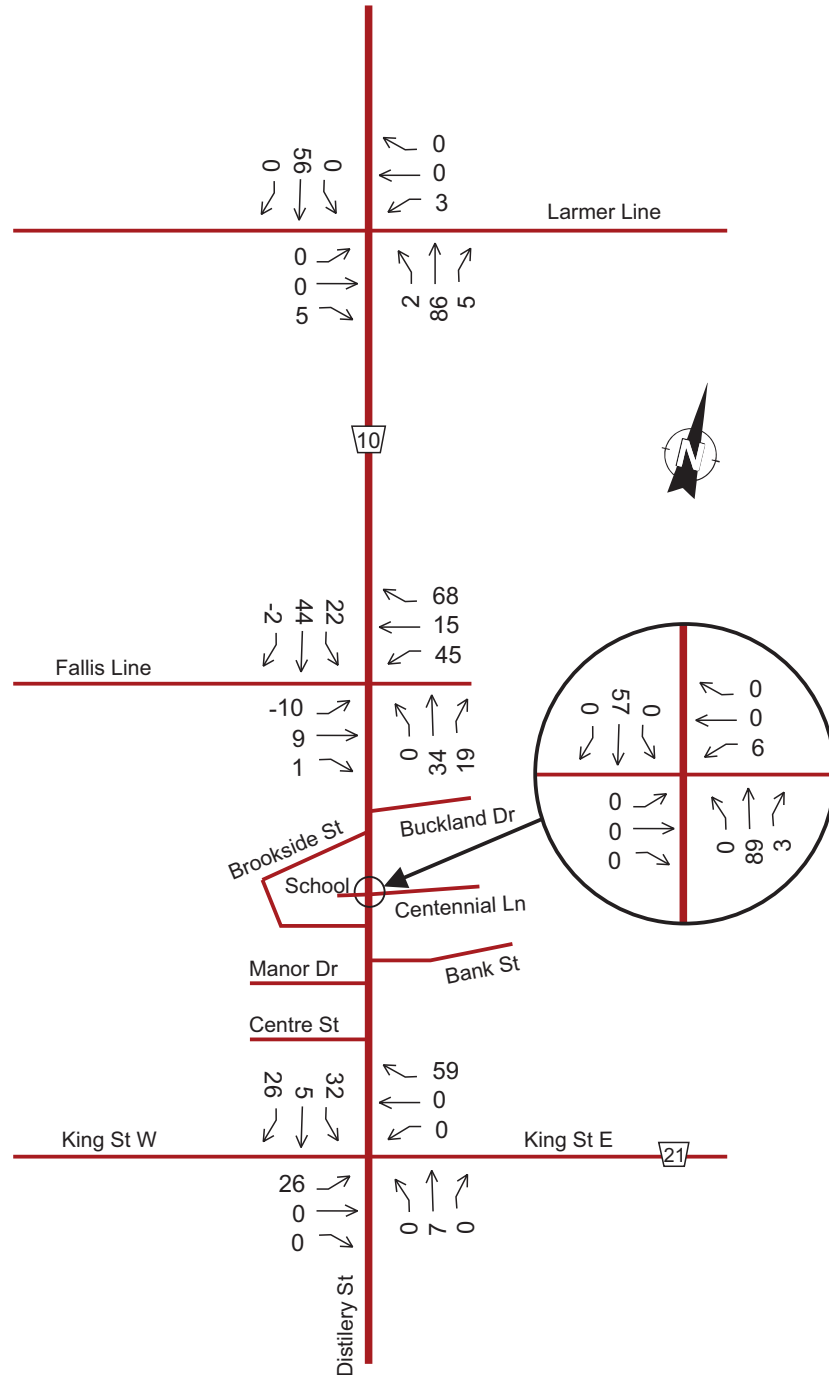
PM Peak Hour - Developments Trips - 2025



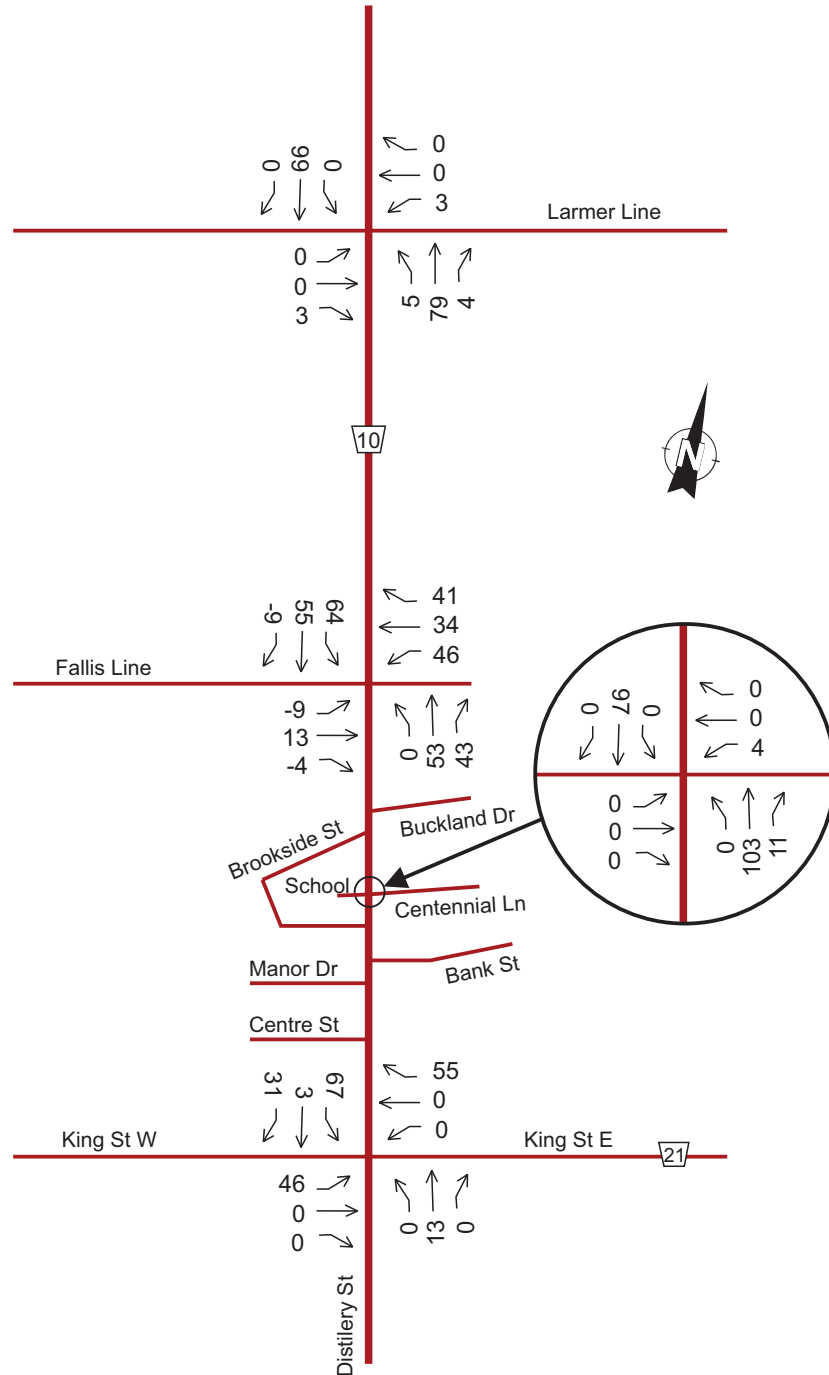
SAT Peak Hour - Developments Trips - 2025



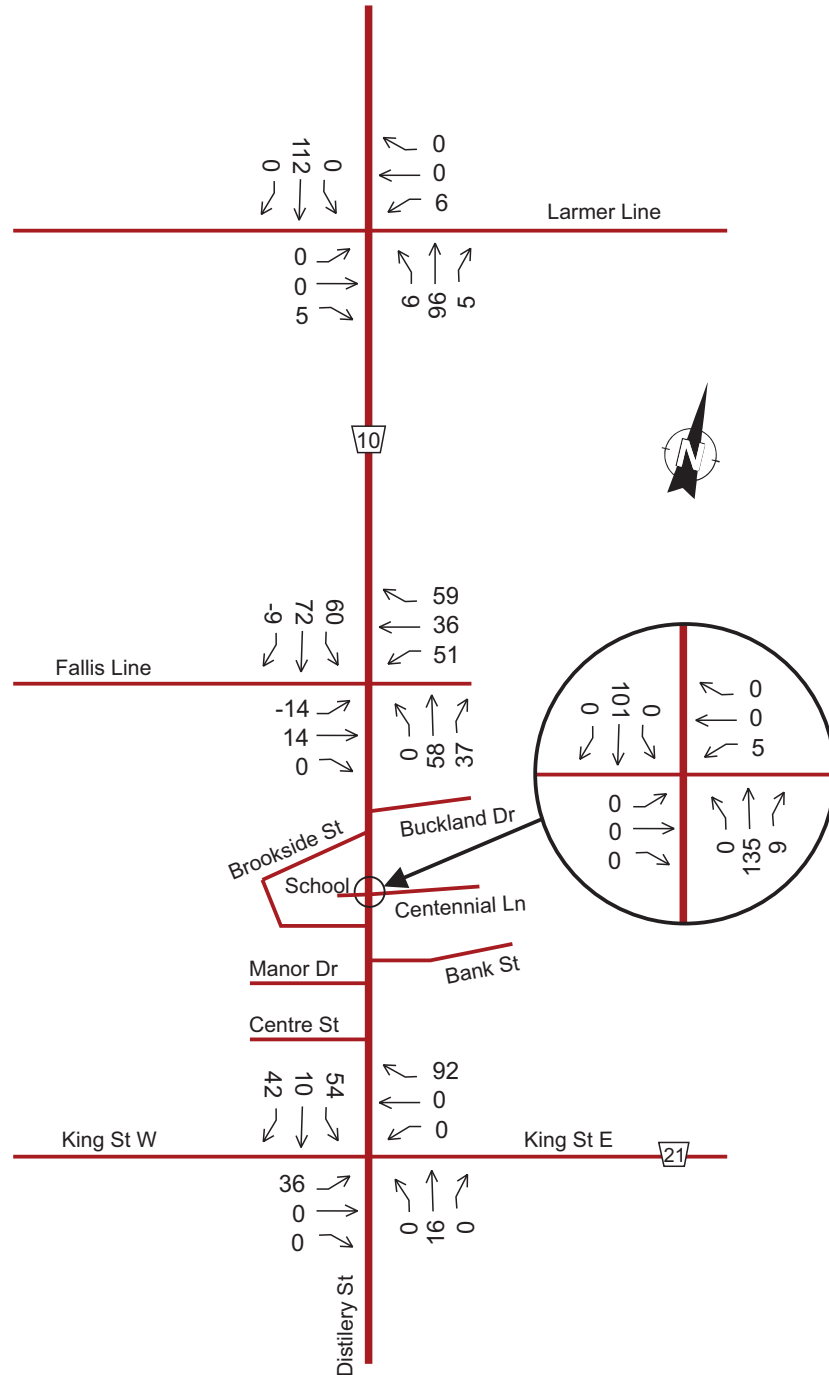
AM Peak Hour - Developments Trips - 2030



PM Peak Hour - Developments Trips - 2030



SAT Peak Hour - Developments Trips - 2030



Appendix G

Synchro Reports - Total Horizon Year 2025

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2025

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	5	42	28	2	11	37	712	50	6	336	4
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1548	0	0	1754	0	1789	1799	0	1789	1840	0
Flt Permitted		0.886			0.772		0.542			0.308		
Satd. Flow (perm)	0	1397	0	0	1400	0	1021	1799	0	580	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			12			8			1	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			361.6	
Travel Time (s)		19.9			21.1			47.6			16.3	
Lane Group Flow (vph)	0	80	0	0	44	0	40	828	0	7	369	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.3	20.3		20.3	20.3		20.7	20.7		20.7	20.7	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.5			8.5		69.5	69.5		69.5	69.5	
Actuated g/C Ratio		0.10			0.10		0.83	0.83		0.83	0.83	
v/c Ratio		0.44			0.29		0.05	0.55		0.01	0.24	
Control Delay		25.3			31.2		2.4	5.0		2.5	2.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		25.3			31.2		2.4	5.0		2.5	2.7	
LOS		C			C		A	A		A	A	
Approach Delay		25.3			31.2			4.9			2.7	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		5.3			5.0		0.9	33.6		0.2	10.2	
Queue Length 95th (m)		16.6			13.3		3.3	73.3		1.1	22.3	
Internal Link Dist (m)		252.5			269.3			1034.2			337.6	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		381			356		848	1496		482	1529	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.21			0.12		0.05	0.55		0.01	0.24	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	312	9	270	28	9	43	191	301	14	12	263	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	30.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1610	0	1789	1650	0	1789	1830	1601	1789	1847	1601
Flt Permitted	0.720			0.415			0.470			0.563		
Satd. Flow (perm)	1356	1610	0	782	1650	0	885	1830	1601	1060	1847	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		293			47				10			167
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			153.4			101.1			1058.2	
Travel Time (s)		41.7			9.2			6.1			63.5	
Lane Group Flow (vph)	339	303	0	30	57	0	208	327	15	13	286	167
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	19.0	44.0	44.0	10.0	35.0	35.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	21.1%	48.9%	48.9%	11.1%	38.9%	38.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	24.2	24.2		24.2	24.2		46.4	42.9	42.9	39.9	31.1	31.1
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.59	0.55	0.55	0.51	0.40	0.40
v/c Ratio	0.81	0.43		0.12	0.11		0.32	0.33	0.02	0.02	0.39	0.23
Control Delay	41.4	5.2		21.0	8.2		10.0	13.0	8.2	9.0	21.0	4.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	5.2		21.0	8.2		10.0	13.0	8.2	9.0	21.0	4.3
LOS	D	A		C	A		B	B	A	A	C	A
Approach Delay		24.3			12.6			11.8			14.7	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	45.1	1.0		3.1	1.0		13.5	24.2	0.3	0.8	30.3	0.0
Queue Length 95th (m)	#83.9	17.5		9.7	8.7		27.4	58.7	3.9	3.3	58.8	12.2
Internal Link Dist (m)		670.5			129.4			77.1			1034.2	
Turn Bay Length (m)	60.0			60.0			30.0		15.0	75.0		75.0
Base Capacity (vph)	550	827		317	697		711	1002	881	606	733	736
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.37		0.09	0.08		0.29	0.33	0.02	0.02	0.39	0.23

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

AM Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 59.5%

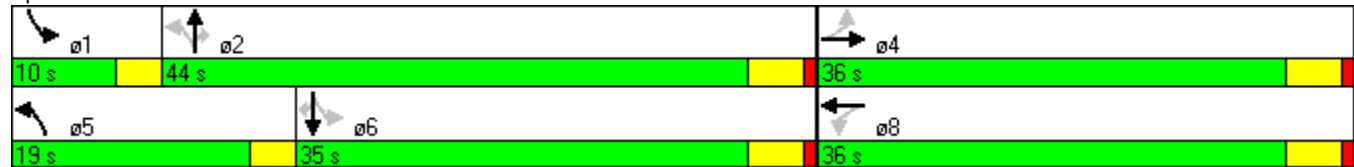
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2025

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	1	29	13	1	16	17	497	12	19	477	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	1	32	14	1	17	18	540	13	21	518	33
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1178	1166	535	1192	1176	547	551			553		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1178	1166	535	1192	1176	547	551			553		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.4			2.2		
p0 queue free %	81	99	94	91	99	97	98			98		
cM capacity (veh/h)	157	186	545	149	184	537	934			1017		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	62	33	572	572								
Volume Left	29	14	18	21								
Volume Right	32	17	13	33								
cSH	247	245	934	1017								
Volume to Capacity	0.25	0.13	0.02	0.02								
Queue Length 95th (m)	7.3	3.4	0.5	0.5								
Control Delay (s)	24.4	21.9	0.5	0.6								
Lane LOS	C	C	A	A								
Approach Delay (s)	24.4	21.9	0.5	0.6								
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			46.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2025
AM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	116	32	1	7	38	265	2	31	7	233	38	193							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	126	35	1	8	41	288	2	34	8	253	41	210							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	162	337	43	253	251														
Volume Left (vph)	126	8	2	253	0														
Volume Right (vph)	1	288	8	0	210														
Hadj (s)	0.23	-0.44	-0.06	0.55	-0.54														
Departure Headway (s)	6.1	5.1	6.2	6.5	5.4														
Degree Utilization, x	0.27	0.48	0.07	0.46	0.38														
Capacity (veh/h)	552	665	503	531	639														
Control Delay (s)	11.3	12.8	9.6	13.7	10.4														
Approach Delay (s)	11.3	12.8	9.6	12.1															
Approach LOS	B	B	A	B															
Intersection Summary																			
Delay				12.1															
HCM Level of Service				B															
Intersection Capacity Utilization				56.5%	ICU Level of Service	B													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

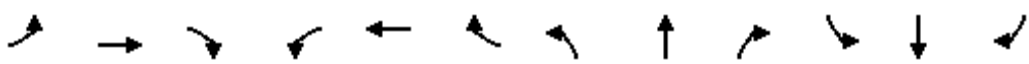
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	19.2	21.6	12.2	22.7	23.4
Average Queue (m)	13.3	15.9	6.0	16.2	16.8
95th Queue (m)	21.0	23.3	15.5	24.6	25.4
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				12	12
Queuing Penalty (veh)				28	28

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2025

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (vph)	4	1	40	33	1	4	37	547	24	9	575	11
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1649	0	0	1781	0	1789	1872	0	1789	1878	0
Flt Permitted		0.967			0.933		0.404			0.412		
Satd. Flow (perm)	0	1601	0	0	1734	0	761	1872	0	776	1878	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			4			5			2	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			256.4	
Travel Time (s)		19.9			21.1			47.6			11.5	
Lane Group Flow (vph)	0	48	0	0	41	0	40	621	0	10	637	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	62.0	62.0	0.0	62.0	62.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	0.0%	68.9%	68.9%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1		70.1	70.1		70.1	70.1	
Actuated g/C Ratio		0.10			0.10		0.87	0.87		0.87	0.87	
v/c Ratio		0.24			0.23		0.06	0.38		0.01	0.39	
Control Delay		15.5			33.8		2.2	3.0		2.2	3.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		15.5			33.8		2.2	3.0		2.2	3.0	
LOS		B			C		A	A		A	A	
Approach Delay		15.5			33.8			2.9			3.0	
Approach LOS		B			C			A			A	
Queue Length 50th (m)		0.8			6.0		1.0	20.6		0.2	21.5	
Queue Length 95th (m)		9.5			13.5		3.2	39.1		1.2	40.6	
Internal Link Dist (m)		252.5			269.3			1034.2			232.4	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		503			515		663	1630		676	1635	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.10			0.08		0.06	0.38		0.01	0.39	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.5

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 4.3

Intersection LOS: A

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	254	13	180	34	25	30	263	274	24	33	334	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	30.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1620	0	1789	1727	0	1789	1883	1601	1789	1883	1601
Flt Permitted	0.718			0.540			0.402			0.578		
Satd. Flow (perm)	1352	1620	0	1017	1727	0	757	1883	1601	1089	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		196			33				18			334
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			159.4			110.3			1058.2	
Travel Time (s)		41.7			9.6			6.6			63.5	
Lane Group Flow (vph)	276	210	0	37	60	0	286	298	26	36	363	334
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	19.0	44.0	44.0	10.0	35.0	35.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	21.1%	48.9%	48.9%	11.1%	38.9%	38.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	20.9	20.9		20.9	20.9		48.5	41.3	41.3	41.2	32.3	32.3
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.63	0.53	0.53	0.53	0.42	0.42
v/c Ratio	0.76	0.36		0.13	0.12		0.46	0.30	0.03	0.06	0.46	0.39
Control Delay	39.8	6.1		22.3	12.2		10.1	13.8	7.9	8.1	21.0	4.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	6.1		22.3	12.2		10.1	13.8	7.9	8.1	21.0	4.0
LOS	D	A		C	B		B	B	A	A	C	A
Approach Delay		25.2			16.1			11.8			12.6	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	38.6	1.6		4.3	3.1		16.4	25.8	0.6	1.8	36.5	0.0
Queue Length 95th (m)	64.1	15.6		11.0	11.1		37.8	52.6	5.2	6.5	78.2	17.1
Internal Link Dist (m)		670.5			135.4			86.3			1034.2	
Turn Bay Length (m)	60.0			60.0			30.0		15.0	75.0		75.0
Base Capacity (vph)	558	784		420	733		693	1007	865	645	788	864
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.27		0.09	0.08		0.41	0.30	0.03	0.06	0.46	0.39

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

PM Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 77.2

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 15.7

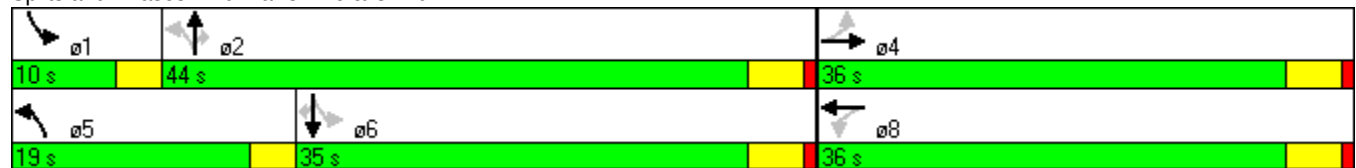
Intersection LOS: B

Intersection Capacity Utilization 67.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2025

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1	13	11	1	16	4	547	21	22	512	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	1	14	12	1	17	4	595	23	24	557	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1242	1235	561	1239	1229	606	566			617		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1242	1235	561	1239	1229	606	566			617		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	99	97	92	99	97	100			98		
cM capacity (veh/h)	142	171	527	144	173	497	1006			963		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	30	622	590								
Volume Left	13	12	4	24								
Volume Right	14	17	23	10								
cSH	226	245	1006	963								
Volume to Capacity	0.12	0.12	0.00	0.02								
Queue Length 95th (m)	3.2	3.2	0.1	0.6								
Control Delay (s)	23.2	21.8	0.1	0.7								
Lane LOS	C	C	A	A								
Approach Delay (s)	23.2	21.8	0.1	0.7								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			52.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2025
PM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	228	75	3	9	55	291	2	77	16	380	16	177							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	248	82	3	10	60	316	2	84	17	413	17	192							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	333	386	103	413	210														
Volume Left (vph)	248	10	2	413	0														
Volume Right (vph)	3	316	17	0	192														
Hadj (s)	0.18	-0.45	-0.06	0.53	-0.61														
Departure Headway (s)	7.2	6.5	8.1	7.8	6.6														
Degree Utilization, x	0.67	0.70	0.23	0.89	0.38														
Capacity (veh/h)	473	521	389	456	535														
Control Delay (s)	23.7	23.5	13.5	46.2	12.5														
Approach Delay (s)	23.7	23.5	13.5	34.8															
Approach LOS	C	C	B	D															
Intersection Summary																			
Delay				27.7															
HCM Level of Service				D															
Intersection Capacity Utilization				75.8%	ICU Level of Service	D													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	24.9	30.4	19.0	30.6	24.6
Average Queue (m)	18.6	21.1	11.6	22.5	16.1
95th Queue (m)	27.2	39.2	19.7	33.0	27.7
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				27	10
Queuing Penalty (veh)				53	39

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2025

SAT Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	4	42	36	7	5	43	671	35	5	524	14
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1686	0	0	1792	0	1789	1870	0	1789	1876	0
Flt Permitted		0.923			0.817		0.424			0.334		
Satd. Flow (perm)	0	1577	0	0	1519	0	799	1870	0	629	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			5			6			3	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			291.7	
Travel Time (s)		19.9			21.1			47.6			13.1	
Lane Group Flow (vph)	0	67	0	0	52	0	47	767	0	5	585	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.3	20.3		20.3	20.3		20.7	20.7		20.7	20.7	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	62.0	62.0	0.0	62.0	62.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	0.0%	68.9%	68.9%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.4			8.4		66.8	66.8		66.8	66.8	
Actuated g/C Ratio		0.10			0.10		0.83	0.83		0.83	0.83	
v/c Ratio		0.33			0.32		0.07	0.50		0.01	0.38	
Control Delay		19.2			35.4		2.6	4.4		2.4	3.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		19.2			35.4		2.6	4.4		2.4	3.5	
LOS		B			D		A	A		A	A	
Approach Delay		19.2			35.4			4.3			3.4	
Approach LOS		B			D			A			A	
Queue Length 50th (m)		3.1			7.1		1.2	30.0		0.1	19.7	
Queue Length 95th (m)		13.2			15.9		3.8	58.1		0.8	37.7	
Internal Link Dist (m)		252.5			269.3			1034.2			267.7	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		496			450		660	1545		519	1550	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.14			0.12		0.07	0.50		0.01	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.9

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 5.7

Intersection LOS: A

Intersection Capacity Utilization 51.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

SAT Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	279	14	260	36	27	42	255	299	27	28	316	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	30.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1616	0	1789	1710	0	1789	1883	1601	1789	1883	1601
Flt Permitted	0.708			0.408			0.411			0.564		
Satd. Flow (perm)	1333	1616	0	768	1710	0	774	1883	1601	1062	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		283			46				19			318
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			150.4			99.8			1058.2	
Travel Time (s)		41.7			9.0			6.0			63.5	
Lane Group Flow (vph)	303	298	0	39	75	0	277	325	29	30	343	318
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	19.0	44.0	44.0	10.0	35.0	35.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	21.1%	48.9%	48.9%	11.1%	38.9%	38.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	22.9	22.9		22.9	22.9		48.0	42.7	42.7	40.1	31.2	31.2
Actuated g/C Ratio	0.29	0.29		0.29	0.29		0.61	0.54	0.54	0.51	0.40	0.40
v/c Ratio	0.78	0.44		0.17	0.14		0.44	0.32	0.03	0.05	0.46	0.38
Control Delay	40.6	5.7		22.8	10.8		10.7	13.8	8.1	8.9	22.5	4.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	5.7		22.8	10.8		10.7	13.8	8.1	8.9	22.5	4.2
LOS	D	A		C	B		B	B	A	A	C	A
Approach Delay		23.3			14.9			12.2			13.5	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	41.4	1.6		4.3	3.1		18.1	23.2	0.6	1.7	39.1	0.0
Queue Length 95th (m)	72.1	18.0		11.9	12.2		36.6	57.8	5.7	5.7	73.5	16.8
Internal Link Dist (m)		670.5			126.4			75.8			1034.2	
Turn Bay Length (m)	60.0			60.0			30.0		15.0	75.0		75.0
Base Capacity (vph)	540	823		311	721		682	1023	878	607	747	827
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.36		0.13	0.10		0.41	0.32	0.03	0.05	0.46	0.38

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2025

SAT Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.7

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 16.1

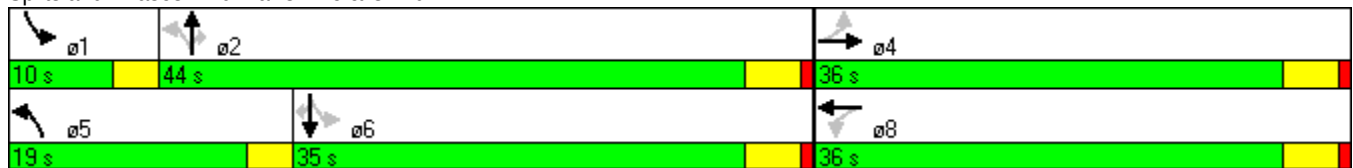
Intersection LOS: B

Intersection Capacity Utilization 68.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2025

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	1	6	11	1	16	2	599	20	16	565	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	7	12	1	17	2	651	22	17	614	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1338	1330	618	1327	1324	662	623			673		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1338	1330	618	1327	1324	662	623			673		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	99	99	91	99	96	100			98		
cM capacity (veh/h)	123	151	489	128	153	462	958			918		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	30	675	640								
Volume Left	5	12	2	17								
Volume Right	7	17	22	9								
cSH	201	220	958	918								
Volume to Capacity	0.06	0.14	0.00	0.02								
Queue Length 95th (m)	1.6	3.6	0.1	0.4								
Control Delay (s)	24.1	24.0	0.1	0.5								
Lane LOS	C	C	A	A								
Approach Delay (s)	24.1	24.0	0.1	0.5								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			52.0%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2025
SAT Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	147	29	1	5	34	328	2	38	5	263	48	207							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	160	32	1	5	37	357	2	41	5	286	52	225							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	192	399	49	286	277														
Volume Left (vph)	160	5	2	286	0														
Volume Right (vph)	1	357	5	0	225														
Hadj (s)	0.20	-0.50	-0.02	0.53	-0.53														
Departure Headway (s)	6.4	5.3	6.7	6.8	5.7														
Degree Utilization, x	0.34	0.59	0.09	0.54	0.44														
Capacity (veh/h)	525	644	451	507	603														
Control Delay (s)	12.6	15.8	10.4	16.4	12.0														
Approach Delay (s)	12.6	15.8	10.4	14.2															
Approach LOS	B	C	B	B															
Intersection Summary																			
Delay				14.3															
HCM Level of Service				B															
Intersection Capacity Utilization				63.3%	ICU Level of Service	B													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	23.4	30.4	10.5	23.2	24.2
Average Queue (m)	15.1	19.6	7.5	16.2	15.6
95th Queue (m)	26.6	33.4	14.0	25.6	25.7
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				15	12
Queuing Penalty (veh)				38	33

Appendix H

Synchro Reports - Total Horizon Year 2030

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2030

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	5	44	31	3	12	41	847	56	6	385	4
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1556	0	0	1758	0	1789	1800	0	1789	1843	0
Flt Permitted		0.892			0.754		0.514			0.240		
Satd. Flow (perm)	0	1415	0	0	1370	0	968	1800	0	452	1843	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			13			8			1	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			361.6	
Travel Time (s)		19.9			21.1			47.6			16.3	
Lane Group Flow (vph)	0	86	0	0	50	0	45	982	0	7	422	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.3	20.3		20.3	20.3		20.7	20.7		20.7	20.7	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.7			8.7		68.9	68.9		68.9	68.9	
Actuated g/C Ratio		0.10			0.10		0.83	0.83		0.83	0.83	
v/c Ratio		0.45			0.32		0.06	0.66		0.02	0.28	
Control Delay		25.5			32.1		2.5	6.9		2.7	3.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		25.5			32.1		2.5	6.9		2.7	3.0	
LOS		C			C		A	A		A	A	
Approach Delay		25.5			32.1			6.7			3.0	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		5.8			5.6		1.1	48.3		0.2	12.3	
Queue Length 95th (m)		17.7			14.6		3.8	110.6		1.1	26.8	
Internal Link Dist (m)		252.5			269.3			1034.2			337.6	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		389			351		801	1491		374	1525	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.22			0.14		0.06	0.66		0.02	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.3

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	406	9	320	45	15	68	217	327	19	22	283	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	150.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1608	0	1789	1652	0	1789	1830	1601	1789	1847	1601
Flt Permitted	0.699			0.396			0.399			0.549		
Satd. Flow (perm)	1317	1608	0	746	1652	0	751	1830	1601	1034	1847	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		348			74				12			192
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			158.4			95.1			1058.2	
Travel Time (s)		41.7			9.5			5.7			63.5	
Lane Group Flow (vph)	441	358	0	49	90	0	236	355	21	24	308	192
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	19.0	40.0	40.0	10.0	31.0	31.0
Total Split (%)	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%	21.1%	44.4%	44.4%	11.1%	34.4%	34.4%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	30.9	30.9		30.9	30.9		43.8	38.4	38.4	35.8	27.0	27.0
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.53	0.47	0.47	0.43	0.33	0.33
v/c Ratio	0.89	0.44		0.17	0.14		0.43	0.42	0.03	0.05	0.51	0.29
Control Delay	47.0	4.3		19.5	6.6		14.0	18.9	10.9	11.4	27.9	5.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	4.3		19.5	6.6		14.0	18.9	10.9	11.4	27.9	5.1
LOS	D	A		B	A		B	B	B	B	C	A
Approach Delay		27.8			11.2			16.7			18.8	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	63.8	1.0		5.1	1.6		21.3	36.0	0.8	1.9	42.6	0.0
Queue Length 95th (m)	#121.6	17.3		13.3	10.5		34.7	70.0	5.3	5.5	70.8	14.4
Internal Link Dist (m)		670.5			134.4			71.1			1034.2	
Turn Bay Length (m)	60.0			60.0			150.0		15.0	75.0		75.0
Base Capacity (vph)	571	894		323	757		602	851	751	514	605	654
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.40		0.15	0.12		0.39	0.42	0.03	0.05	0.51	0.29

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

AM Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 82.5

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 21.2

Intersection LOS: C

Intersection Capacity Utilization 70.3%

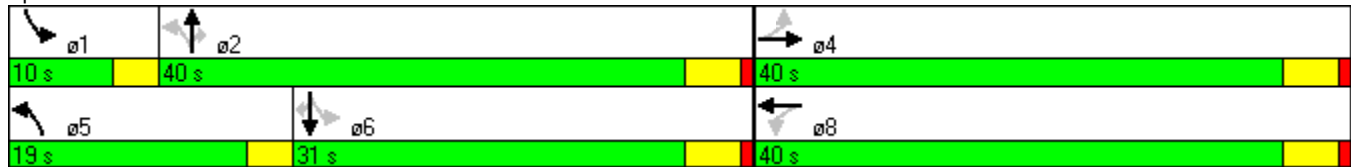
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2030

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	1	32	18	1	18	19	552	14	22	559	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	1	35	20	1	20	21	600	15	24	608	36
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1342	1330	626	1358	1340	608	643			615		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1342	1330	626	1358	1340	608	643			615		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.4			2.2		
p0 queue free %	73	99	93	83	99	96	98			98		
cM capacity (veh/h)	119	147	484	112	145	496	861			964		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	68	40	636	667								
Volume Left	33	20	21	24								
Volume Right	35	20	15	36								
cSH	194	182	861	964								
Volume to Capacity	0.35	0.22	0.02	0.02								
Queue Length 95th (m)	11.4	6.2	0.6	0.6								
Control Delay (s)	33.4	30.4	0.6	0.7								
Lane LOS	D	D	A	A								
Approach Delay (s)	33.4	30.4	0.6	0.7								
Approach LOS	D	D										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utilization			51.9%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2030
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	129	36	1	8	42	294	3	35	8	275	45	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	140	39	1	9	46	320	3	38	9	299	49	248
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	180	374	50	299	297							
Volume Left (vph)	140	9	3	299	0							
Volume Right (vph)	1	320	9	0	248							
Hadj (s)	0.23	-0.44	-0.06	0.55	-0.54							
Departure Headway (s)	6.4	5.4	6.6	6.8	5.7							
Degree Utilization, x	0.32	0.56	0.09	0.56	0.47							
Capacity (veh/h)	522	633	465	514	614							
Control Delay (s)	12.4	15.2	10.3	16.8	12.3							
Approach Delay (s)	12.4	15.2	10.3	14.6								
Approach LOS	B	C	B	B								
Intersection Summary												
Delay				14.3								
HCM Level of Service				B								
Intersection Capacity Utilization				61.8%	ICU Level of Service	B						
Analysis Period (min)				15								

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	24.8	26.8	10.6	27.0	24.0
Average Queue (m)	17.3	19.6	6.8	19.6	16.6
95th Queue (m)	34.9	30.8	14.2	29.8	26.3
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				17	12
Queuing Penalty (veh)				46	33

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2030

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	1	46	38	1	4	44	660	28	10	714	12
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1645	0	0	1781	0	1789	1872	0	1789	1880	0
Flt Permitted		0.974			0.899		0.331			0.350		
Satd. Flow (perm)	0	1609	0	0	1673	0	623	1872	0	659	1880	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50			4			5			2	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			256.4	
Travel Time (s)		19.9			21.1			47.6			11.5	
Lane Group Flow (vph)	0	55	0	0	46	0	48	747	0	11	789	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	62.0	62.0	0.0	62.0	62.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	0.0%	68.9%	68.9%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.3			8.3		68.9	68.9		68.9	68.9	
Actuated g/C Ratio		0.10			0.10		0.87	0.87		0.87	0.87	
v/c Ratio		0.26			0.26		0.09	0.46		0.02	0.48	
Control Delay		14.5			34.0		2.6	3.7		2.3	3.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		14.5			34.0		2.6	3.7		2.3	3.9	
LOS		B			C		A	A		A	A	
Approach Delay		14.5			34.0			3.6			3.8	
Approach LOS		B			C			A			A	
Queue Length 50th (m)		0.8			6.7		1.2	28.5		0.3	31.2	
Queue Length 95th (m)		10.0			14.4		3.9	54.3		1.3	59.9	
Internal Link Dist (m)		252.5			269.3			1034.2			232.4	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		515			502		539	1622		571	1628	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.11			0.09		0.09	0.46		0.02	0.48	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 79.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	316	13	218	46	34	41	332	295	43	64	363	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	150.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1616	0	1789	1729	0	1789	1883	1601	1789	1883	1601
Flt Permitted	0.704			0.491			0.341			0.566		
Satd. Flow (perm)	1326	1616	0	925	1729	0	642	1883	1601	1066	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		237			45				31			441
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			154.4			94.1			1058.2	
Travel Time (s)		41.7			9.3			5.6			63.5	
Lane Group Flow (vph)	343	251	0	50	82	0	361	321	47	70	395	441
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	19.0	44.0	44.0	10.0	35.0	35.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	21.1%	48.9%	48.9%	11.1%	38.9%	38.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	25.5	25.5		25.5	25.5		49.9	40.5	40.5	40.6	31.8	31.8
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.60	0.49	0.49	0.49	0.38	0.38
v/c Ratio	0.84	0.38		0.18	0.15		0.63	0.35	0.06	0.12	0.55	0.50
Control Delay	46.8	5.4		22.6	11.7		14.9	16.7	7.8	9.6	25.7	4.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	5.4		22.6	11.7		14.9	16.7	7.8	9.6	25.7	4.5
LOS	D	A		C	B		B	B	A	A	C	A
Approach Delay		29.3			15.8			15.2			14.1	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	51.4	1.6		5.9	4.2		28.9	34.3	1.4	4.6	52.2	0.0
Queue Length 95th (m)	#91.4	16.6		14.2	13.5		48.8	56.9	7.4	10.7	86.3	19.0
Internal Link Dist (m)		670.5			130.4			70.1			1034.2	
Turn Bay Length (m)	60.0			60.0			150.0		15.0	75.0		75.0
Base Capacity (vph)	505	762		352	686		608	918	796	582	721	885
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.33		0.14	0.12		0.59	0.35	0.06	0.12	0.55	0.50

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

PM Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.4

Intersection LOS: B

Intersection Capacity Utilization 75.9%

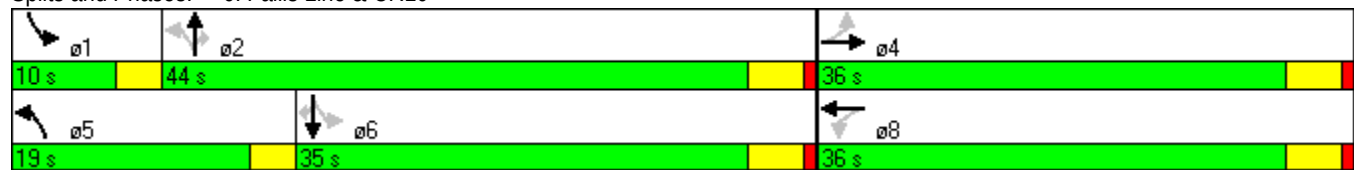
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2030
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	1	14	14	1	18	5	647	28	24	593	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	1	15	15	1	20	5	703	30	26	645	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1452	1447	650	1447	1437	718	655			734		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1452	1447	650	1447	1437	718	655			734		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	99	97	85	99	95	99			97		
cM capacity (veh/h)	100	127	469	102	129	429	932			871		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	30	36	739	682								
Volume Left	14	15	5	26								
Volume Right	15	20	30	11								
cSH	167	177	932	871								
Volume to Capacity	0.18	0.20	0.01	0.03								
Queue Length 95th (m)	4.9	5.6	0.1	0.7								
Control Delay (s)	31.3	30.5	0.2	0.8								
Lane LOS	D	D	A	A								
Approach Delay (s)	31.3	30.5	0.2	0.8								
Approach LOS	D	D										
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			57.9%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2030
PM Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	279	82	4	10	61	344	3	83	18	438	19	205							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	303	89	4	11	66	374	3	90	20	476	21	223							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	397	451	113	476	243														
Volume Left (vph)	303	11	3	476	0														
Volume Right (vph)	4	374	20	0	223														
Hadj (s)	0.18	-0.46	-0.06	0.53	-0.61														
Departure Headway (s)	7.7	7.0	8.9	8.4	7.3														
Degree Utilization, x	0.84	0.87	0.28	1.12	0.49														
Capacity (veh/h)	452	507	365	416	492														
Control Delay (s)	40.0	41.2	15.4	107.0	15.9														
Approach Delay (s)	40.0	41.2	15.4	76.2															
Approach LOS	E	E	C	F															
Intersection Summary																			
Delay				54.1															
HCM Level of Service				F															
Intersection Capacity Utilization				85.9%	ICU Level of Service	E													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	42.9	56.6	14.7	34.1	33.9
Average Queue (m)	30.9	39.6	10.7	26.4	18.6
95th Queue (m)	55.3	81.3	17.3	37.4	35.5
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				37	11
Queuing Penalty (veh)				83	48

HCM Signalized Intersection Capacity Analysis

3: Larmer Line & CR10

Total Volumes - 2030

SAT Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	4	48	43	8	5	50	777	41	5	647	16
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	60.0		0.0	60.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	2.5		2.5	2.5		2.5	100.0		2.5	100.0		2.5
Satd. Flow (prot)	0	1688	0	0	1794	0	1789	1868	0	1789	1876	0
Flt Permitted		0.921			0.775		0.354			0.276		
Satd. Flow (perm)	0	1575	0	0	1444	0	667	1868	0	520	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52			5			6			3	
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		276.5			293.3			1058.2			291.7	
Travel Time (s)		19.9			21.1			47.6			13.1	
Lane Group Flow (vph)	0	76	0	0	61	0	54	890	0	5	720	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.3	20.3		20.3	20.3		20.7	20.7		20.7	20.7	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	62.0	62.0	0.0	62.0	62.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	0.0%	68.9%	68.9%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.3	4.3	4.0	4.3	4.3	4.0	4.7	4.7	4.0	4.7	4.7	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.9			8.9		65.9	65.9		65.9	65.9	
Actuated g/C Ratio		0.11			0.11		0.82	0.82		0.82	0.82	
v/c Ratio		0.35			0.37		0.10	0.58		0.01	0.47	
Control Delay		18.7			36.7		3.0	5.7		2.6	4.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		18.7			36.7		3.0	5.7		2.6	4.4	
LOS		B			D		A	A		A	A	
Approach Delay		18.7			36.7			5.5			4.4	
Approach LOS		B			D			A			A	
Queue Length 50th (m)		3.4			8.3		1.4	41.0		0.1	28.3	
Queue Length 95th (m)		14.2			17.9		4.6	82.2		0.9	55.2	
Internal Link Dist (m)		252.5			269.3			1034.2			267.7	
Turn Bay Length (m)							60.0			60.0		
Base Capacity (vph)		502			430		547	1531		426	1537	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.15			0.14		0.10	0.58		0.01	0.47	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 58.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Larmer Line & CR10



HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

SAT Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	358	14	305	51	36	59	313	321	37	60	338	374
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		30.0	60.0		15.0	150.0		15.0	75.0		75.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	60.0		30.0	60.0		45.0	100.0		45.0	70.0		70.0
Satd. Flow (prot)	1789	1612	0	1789	1708	0	1789	1883	1601	1789	1883	1601
Flt Permitted	0.690			0.374			0.354			0.552		
Satd. Flow (perm)	1300	1612	0	704	1708	0	667	1883	1601	1040	1883	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		332			64				24			407
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		694.5			150.4			85.1			1058.2	
Travel Time (s)		41.7			9.0			5.1			63.5	
Lane Group Flow (vph)	389	347	0	55	103	0	340	349	40	65	367	407
Turn Type	Perm			Perm			pm+pt		Perm	pm+pt		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		10.0	20.7	20.7	10.0	20.7	20.7
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	19.0	44.0	44.0	10.0	35.0	35.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	21.1%	48.9%	48.9%	11.1%	38.9%	38.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	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 Lost Time (s)	4.7	4.7	4.0	4.7	4.7	4.0	3.0	4.7	4.7	3.0	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effect Green (s)	28.5	28.5		28.5	28.5		49.8	40.4	40.4	40.3	31.5	31.5
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.58	0.47	0.47	0.47	0.37	0.37
v/c Ratio	0.90	0.46		0.24	0.17		0.60	0.40	0.05	0.12	0.53	0.48
Control Delay	53.9	5.2		24.2	10.1		15.0	18.2	8.5	10.1	26.4	4.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	5.2		24.2	10.1		15.0	18.2	8.5	10.1	26.4	4.5
LOS	D	A		C	B		B	B	A	B	C	A
Approach Delay		30.9			15.0			16.2			14.5	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	61.8	1.7		6.6	4.5		29.3	40.4	1.5	4.7	50.4	0.0
Queue Length 95th (m)	#112.2	19.1		15.9	14.9		45.6	62.3	7.0	10.1	79.2	18.5
Internal Link Dist (m)		670.5			126.4			61.1			1034.2	
Turn Bay Length (m)	60.0			60.0			150.0		15.0	75.0		75.0
Base Capacity (vph)	476	801		258	666		596	883	764	548	689	844
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.43		0.21	0.15		0.57	0.40	0.05	0.12	0.53	0.48

HCM Signalized Intersection Capacity Analysis

6: Fallis Line & CR10

Total Volumes - 2030

SAT Peak Hour

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 86.1

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 20.0

Intersection LOS: B

Intersection Capacity Utilization 75.9%

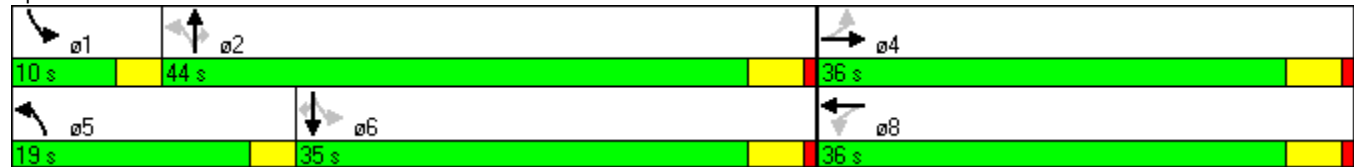
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Fallis Line & CR10



HCM Unsignalized Intersection Capacity Analysis

9: School Access & CR10 & Centennial Rd

Total Volumes - 2030

SAT Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	1	7	13	1	18	2	688	26	18	645	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1	8	14	1	20	2	748	28	20	701	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1531	1525	705	1519	1515	762	710			776		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1531	1525	705	1519	1515	762	710			776		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	99	98	85	99	95	100			98		
cM capacity (veh/h)	88	115	436	93	116	405	889			840		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	35	778	729								
Volume Left	7	14	2	20								
Volume Right	8	20	28	9								
cSH	151	166	889	840								
Volume to Capacity	0.10	0.21	0.00	0.02								
Queue Length 95th (m)	2.5	5.8	0.1	0.5								
Control Delay (s)	31.4	32.3	0.1	0.6								
Lane LOS	D	D	A	A								
Approach Delay (s)	31.4	32.3	0.1	0.6								
Approach LOS	D	D										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			57.9%	ICU Level of Service					B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 12: King St (CR21) & CR10

Total Volumes - 2030
SAT Peak Hour

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	166	32	1	6	37	381	2	49	6	302	56	237							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	180	35	1	7	40	414	2	53	7	328	61	258							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	216	461	62	328	318														
Volume Left (vph)	180	7	2	328	0														
Volume Right (vph)	1	414	7	0	258														
Hadj (s)	0.20	-0.50	-0.02	0.53	-0.53														
Departure Headway (s)	6.9	5.7	7.4	7.2	6.2														
Degree Utilization, x	0.41	0.73	0.13	0.66	0.54														
Capacity (veh/h)	481	612	422	483	569														
Control Delay (s)	14.6	22.7	11.4	22.1	15.1														
Approach Delay (s)	14.6	22.7	11.4	18.6															
Approach LOS	B	C	B	C															
Intersection Summary																			
Delay				19.0															
HCM Level of Service				C															
Intersection Capacity Utilization				70.1%	ICU Level of Service	C													
Analysis Period (min)				15															

Intersection: 12: King St (CR21) & CR10

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	18.0	29.6	14.8	22.7	24.4
Average Queue (m)	14.4	21.6	9.4	17.2	19.1
95th Queue (m)	20.3	32.6	16.6	23.2	26.3
Link Distance (m)	518.3	494.8	260.2		495.3
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				16	17
Queuing Penalty (veh)				46	50

Appendix I

Accesses Synchro Reports

Total Horizon Year 2025

HCM Unsignalized Intersection Capacity Analysis 22: Fallis Line & (Ar) Res. Access

Total Volumes - 2025
AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↘↗	
Volume (veh/h)	0	5	0	0	15	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	5	0	0	16	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			5		3	3
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			5		3	3
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1616		1020	1081
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	5	0	16			
Volume Left	0	0	16			
Volume Right	5	0	0			
cSH	1700	1700	1020			
Volume to Capacity	0.00	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.4			
Control Delay (s)	0.0	0.0	8.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay		6.4				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line & (Br) Res. Access

Total Volumes - 2025
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	5	11	0	15	34	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	12	0	16	37	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	366					
pX, platoon unblocked						
vC, conflicting volume			17		28	11
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			17		28	11
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1600		987	1069
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	17	16	37			
Volume Left	0	0	37			
Volume Right	12	0	0			
cSH	1700	1600	987			
Volume to Capacity	0.01	0.00	0.04			
Queue Length 95th (m)	0.0	0.0	0.9			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay		4.6				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

18: Fallis Line & (Ac) Comm. Access

Total Volumes - 2025
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	13	4	4	45	6	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	4	4	49	7	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	254					
pX, platoon unblocked						
vC, conflicting volume			18		74	16
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			18		74	16
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1598		927	1063
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	18	53	10			
Volume Left	0	4	7			
Volume Right	4	0	3			
cSH	1700	1598	968			
Volume to Capacity	0.01	0.00	0.01			
Queue Length 95th (m)	0.0	0.1	0.2			
Control Delay (s)	0.0	0.6	8.8			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.6	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			15.7%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line & (Bc) Comm Access

Total Volumes - 2025
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	13	22	6	45	35	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	24	7	49	38	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	153					
pX, platoon unblocked						
vC, conflicting volume			38		88	26
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		88	26
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	100
cM capacity (veh/h)			1572		909	1050
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	38	55	42			
Volume Left	0	7	38			
Volume Right	24	0	4			
cSH	1700	1572	922			
Volume to Capacity	0.02	0.00	0.05			
Queue Length 95th (m)	0.0	0.1	1.1			
Control Delay (s)	0.0	0.9	9.1			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.9	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay		3.2				
Intersection Capacity Utilization		17.4%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2025
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	19	36	470	58	36	525
Sign Control	Stop		Free		Free	Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	39	511	63	39	571
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (m)					101	
pX, platoon unblocked	0.90					
vC, conflicting volume	1160	511			574	
vC1, stage 1 conf vol	511					
vC2, stage 2 conf vol	649					
vCu, unblocked vol	1122	511			574	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	93			96	
cM capacity (veh/h)	415	563			999	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	60	511	63	39	571	
Volume Left	21	0	0	39	0	
Volume Right	39	0	63	0	0	
cSH	501	1700	1700	999	1700	
Volume to Capacity	0.12	0.30	0.04	0.04	0.34	
Queue Length 95th (m)	3.1	0.0	0.0	0.9	0.0	
Control Delay (s)	13.2	0.0	0.0	8.8	0.0	
Lane LOS	B			A		
Approach Delay (s)	13.2	0.0		0.6		
Approach LOS	B					
Intersection Summary						
Average Delay		0.9				
Intersection Capacity Utilization		39.9%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

25: (Dc) Comm. Access & CR10

Total Volumes - 2025
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	15	28	500	42	28	516
Sign Control	Stop		Free		Free	Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	30	543	46	30	561
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		TWLT	TL
Median storage (veh)						2
Upstream signal (m)						220
pX, platoon unblocked	0.93					
vC, conflicting volume	1165	543			589	
vC1, stage 1 conf vol	543					
vC2, stage 2 conf vol	622					
vCu, unblocked vol	1139	543			589	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	94			97	
cM capacity (veh/h)	420	539			986	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	47	543	46	30	561	
Volume Left	16	0	0	30	0	
Volume Right	30	0	46	0	0	
cSH	491	1700	1700	986	1700	
Volume to Capacity	0.10	0.32	0.03	0.03	0.33	
Queue Length 95th (m)	2.4	0.0	0.0	0.7	0.0	
Control Delay (s)	13.1	0.0	0.0	8.8	0.0	
Lane LOS	B			A		
Approach Delay (s)	13.1	0.0		0.5		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			37.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 22: Fallis Line & (Ar) Res. Access

Total Volumes - 2025
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	15	0	0	9	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	0	0	10	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			16		8	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			16		8	8
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1601		1013	1074
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	16	0	10			
Volume Left	0	0	10			
Volume Right	16	0	0			
cSH	1700	1700	1013			
Volume to Capacity	0.01	0.00	0.01			
Queue Length 95th (m)	0.0	0.0	0.2			
Control Delay (s)	0.0	0.0	8.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay		3.2				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line & (Br) Res. Access

Total Volumes - 2025
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	15	35	0	9	22	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	38	0	10	24	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			54		45	35
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			54		45	35
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1551		965	1037
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	54	10	24			
Volume Left	0	0	24			
Volume Right	38	0	0			
cSH	1700	1551	965			
Volume to Capacity	0.03	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.6			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay		2.4				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

18: Fallis Line & (Ac) Comm. Access

Total Volumes - 2025
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	45	5	5	26	10	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	5	5	28	11	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	284					
pX, platoon unblocked						
vC, conflicting volume			54		91	52
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			54		91	52
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1551		906	1016
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	54	34	16			
Volume Left	0	5	11			
Volume Right	5	0	5			
cSH	1700	1551	940			
Volume to Capacity	0.03	0.00	0.02			
Queue Length 95th (m)	0.0	0.1	0.4			
Control Delay (s)	0.0	1.2	8.9			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.2	8.9			
Approach LOS			A			
Intersection Summary						
Average Delay		1.8				
Intersection Capacity Utilization		15.6%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line & (Bc) Comm. Access

Total Volumes - 2025
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	42	28	7	29	60	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	30	8	32	65	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	159					
pX, platoon unblocked						
vC, conflicting volume			76		108	61
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			76		108	61
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	99
cM capacity (veh/h)			1523		885	1004
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	76	39	74			
Volume Left	0	8	65			
Volume Right	30	0	9			
cSH	1700	1523	898			
Volume to Capacity	0.04	0.00	0.08			
Queue Length 95th (m)	0.0	0.1	2.0			
Control Delay (s)	0.0	1.5	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.5	9.4			
Approach LOS			A			
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		18.0%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2025

PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	45	516	56	43	505
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	49	561	61	47	549
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (m)					110	
pX, platoon unblocked	0.87					
vC, conflicting volume	1203	561			622	
vC1, stage 1 conf vol	561					
vC2, stage 2 conf vol	642					
vCu, unblocked vol	1158	561			622	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	91			95	
cM capacity (veh/h)	402	527			959	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	103	561	61	47	549	
Volume Left	54	0	0	47	0	
Volume Right	49	0	61	0	0	
cSH	453	1700	1700	959	1700	
Volume to Capacity	0.23	0.33	0.04	0.05	0.32	
Queue Length 95th (m)	6.6	0.0	0.0	1.2	0.0	
Control Delay (s)	15.3	0.0	0.0	8.9	0.0	
Lane LOS	C			A		
Approach Delay (s)	15.3	0.0		0.7		
Approach LOS	C					
Intersection Summary						
Average Delay		1.5				
Intersection Capacity Utilization		46.0%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

25: (Dc) Comm. Access & CR10

Total Volumes - 2025
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	38	35	537	41	33	522
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	38	584	45	36	567
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLT
Median storage veh						2
Upstream signal (m)						226
pX, platoon unblocked	0.89					
vC, conflicting volume	1223	584			628	
vC1, stage 1 conf vol	584					
vC2, stage 2 conf vol	639					
vCu, unblocked vol	1189	584			628	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	93			96	
cM capacity (veh/h)	402	512			954	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	79	584	45	36	567	
Volume Left	41	0	0	36	0	
Volume Right	38	0	45	0	0	
cSH	448	1700	1700	954	1700	
Volume to Capacity	0.18	0.34	0.03	0.04	0.33	
Queue Length 95th (m)	4.8	0.0	0.0	0.9	0.0	
Control Delay (s)	14.8	0.0	0.0	8.9	0.0	
Lane LOS	B			A		
Approach Delay (s)	14.8	0.0		0.5		
Approach LOS	B					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			39.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

21: Fallis Line Driveway & (Ar) Res. Access

Total Volumes - 2025
SAT Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↘↙	
Volume (veh/h)	0	13	0	0	12	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	0	0	13	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			14		7	7
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			14		7	7
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1604		1014	1075
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	14	0	13			
Volume Left	0	0	13			
Volume Right	14	0	0			
cSH	1700	1700	1014			
Volume to Capacity	0.01	0.00	0.01			
Queue Length 95th (m)	0.0	0.0	0.3			
Control Delay (s)	0.0	0.0	8.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay		4.1				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line Driveway & (Br) Res. Access

Total Volumes - 2025
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	13	29	0	12	28	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	32	0	13	30	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	328					
pX, platoon unblocked						
vC, conflicting volume			46		43	30
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			46		43	30
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	100
cM capacity (veh/h)			1562		968	1045
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	46	13	30			
Volume Left	0	0	30			
Volume Right	32	0	0			
cSH	1700	1562	968			
Volume to Capacity	0.03	0.00	0.03			
Queue Length 95th (m)	0.0	0.0	0.7			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay		3.0				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 18: Fallis Line Driveway & (Ac) Comm. Access

Total Volumes - 2025
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	36	6	6	34	14	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	7	7	37	15	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	234					
pX, platoon unblocked						
vC, conflicting volume			46		92	42
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			46		92	42
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1562		904	1028
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	46	43	22			
Volume Left	0	7	15			
Volume Right	7	0	7			
cSH	1700	1562	938			
Volume to Capacity	0.03	0.00	0.02			
Queue Length 95th (m)	0.0	0.1	0.5			
Control Delay (s)	0.0	1.1	8.9			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.1	8.9			
Approach LOS			A			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		16.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line Driveway & (Bc) Comm. Access

Total Volumes - 2025
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	34	35	9	39	66	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	38	10	42	72	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	150					
pX, platoon unblocked						
vC, conflicting volume			75		118	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			75		118	56
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	99
cM capacity (veh/h)			1524		872	1011
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	75	52	80			
Volume Left	0	10	72			
Volume Right	38	0	9			
cSH	1700	1524	885			
Volume to Capacity	0.04	0.01	0.09			
Queue Length 95th (m)	0.0	0.1	2.3			
Control Delay (s)	0.0	1.4	9.5			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.4	9.5			
Approach LOS			A			
Intersection Summary						
Average Delay			4.0			
Intersection Capacity Utilization			20.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2025

SAT Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	52	52	529	78	55	557
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	57	57	575	85	60	605
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (m)					100	
pX, platoon unblocked	0.88					
vC, conflicting volume	1300	575			660	
vC1, stage 1 conf vol	575					
vC2, stage 2 conf vol	725					
vCu, unblocked vol	1271	575			660	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	89			94	
cM capacity (veh/h)	367	518			928	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	113	575	85	60	605	
Volume Left	57	0	0	60	0	
Volume Right	57	0	85	0	0	
cSH	430	1700	1700	928	1700	
Volume to Capacity	0.26	0.34	0.05	0.06	0.36	
Queue Length 95th (m)	7.9	0.0	0.0	1.6	0.0	
Control Delay (s)	16.3	0.0	0.0	9.1	0.0	
Lane LOS	C			A		
Approach Delay (s)	16.3	0.0		0.8		
Approach LOS	C					
Intersection Summary						
Average Delay		1.7				
Intersection Capacity Utilization		47.2%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

26: (Dc) Comm. Access & CR10

Total Volumes - 2025
SAT Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	39	39	568	61	41	568
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	42	617	66	45	617
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLT
Median storage veh						2
Upstream signal (m)						218
pX, platoon unblocked	0.90					
vC, conflicting volume	1324	617			684	
vC1, stage 1 conf vol	617					
vC2, stage 2 conf vol	707					
vCu, unblocked vol	1305	617			684	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	91			95	
cM capacity (veh/h)	370	490			909	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	85	617	66	45	617	
Volume Left	42	0	0	45	0	
Volume Right	42	0	66	0	0	
cSH	422	1700	1700	909	1700	
Volume to Capacity	0.20	0.36	0.04	0.05	0.36	
Queue Length 95th (m)	5.6	0.0	0.0	1.2	0.0	
Control Delay (s)	15.7	0.0	0.0	9.2	0.0	
Lane LOS	C			A		
Approach Delay (s)	15.7	0.0		0.6		
Approach LOS	C					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			45.3%		ICU Level of Service	A
Analysis Period (min)			15			

Appendix J

Accesses Synchro Reports

Total Horizon Year 2030

HCM Unsignalized Intersection Capacity Analysis

22: Fallis Line & (Ar) Res. Access

Total Volumes - 2030
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	9	0	0	29	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	10	0	0	32	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			10		5	5
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			10		5	5
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	100
cM capacity (veh/h)			1610		1017	1078
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	10	0	32			
Volume Left	0	0	32			
Volume Right	10	0	0			
cSH	1700	1700	1017			
Volume to Capacity	0.01	0.00	0.03			
Queue Length 95th (m)	0.0	0.0	0.7			
Control Delay (s)	0.0	0.0	8.7			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.7			
Approach LOS			A			
Intersection Summary						
Average Delay			6.6			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line & (Br) Res. Access

Total Volumes - 2030
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	9	22	0	29	68	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	24	0	32	74	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	384					
pX, platoon unblocked						
vC, conflicting volume			34		53	22
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			34		53	22
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		92	100
cM capacity (veh/h)			1578		955	1055
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	34	32	74			
Volume Left	0	0	74			
Volume Right	24	0	0			
cSH	1700	1578	955			
Volume to Capacity	0.02	0.00	0.08			
Queue Length 95th (m)	0.0	0.0	1.9			
Control Delay (s)	0.0	0.0	9.1			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay		4.8				
Intersection Capacity Utilization		13.8%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

18: Fallis Line & (Ac) Comm. Access

Total Volumes - 2030
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	28	4	4	93	6	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	4	4	101	7	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	274					
pX, platoon unblocked						
vC, conflicting volume			35		142	33
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			35		142	33
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1577		848	1041
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	35	105	10			
Volume Left	0	4	7			
Volume Right	4	0	3			
cSH	1700	1577	904			
Volume to Capacity	0.02	0.00	0.01			
Queue Length 95th (m)	0.0	0.1	0.2			
Control Delay (s)	0.0	0.3	9.0			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.3	9.0			
Approach LOS			A			
Intersection Summary						
Average Delay		0.8				
Intersection Capacity Utilization		18.1%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line & (Bc) Comm. Access

Total Volumes - 2030
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	28	22	6	93	35	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	24	7	101	38	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	159					
pX, platoon unblocked						
vC, conflicting volume			54		157	42
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			54		157	42
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	100
cM capacity (veh/h)			1551		831	1028
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	54	108	42			
Volume Left	0	7	38			
Volume Right	24	0	4			
cSH	1700	1551	848			
Volume to Capacity	0.03	0.00	0.05			
Queue Length 95th (m)	0.0	0.1	1.2			
Control Delay (s)	0.0	0.5	9.5			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.5	9.5			
Approach LOS			A			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		19.8%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2030

AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	19	36	527	58	36	612
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	39	573	63	39	665
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh)			2		2	
Upstream signal (m)					95	
pX, platoon unblocked	0.87					
vC, conflicting volume	1316	573			636	
vC1, stage 1 conf vol	573					
vC2, stage 2 conf vol	743					
vCu, unblocked vol	1290	573			636	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	92			96	
cM capacity (veh/h)	368	519			948	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	60	573	63	39	665	
Volume Left	21	0	0	39	0	
Volume Right	39	0	63	0	0	
cSH	454	1700	1700	948	1700	
Volume to Capacity	0.13	0.34	0.04	0.04	0.39	
Queue Length 95th (m)	3.4	0.0	0.0	1.0	0.0	
Control Delay (s)	14.1	0.0	0.0	9.0	0.0	
Lane LOS	B			A		
Approach Delay (s)	14.1	0.0		0.5		
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			42.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: (Dc) Comm. Access & CR10

Total Volumes - 2030
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	15	28	557	42	28	603
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	30	605	46	30	655
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLT
Median storage veh						2
Upstream signal (m)						192
pX, platoon unblocked	0.89					
vC, conflicting volume	1322	605			651	
vC1, stage 1 conf vol	605					
vC2, stage 2 conf vol	716					
vCu, unblocked vol	1299	605			651	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	94			97	
cM capacity (veh/h)	373	497			935	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	47	605	46	30	655	
Volume Left	16	0	0	30	0	
Volume Right	30	0	46	0	0	
cSH	446	1700	1700	935	1700	
Volume to Capacity	0.10	0.36	0.03	0.03	0.39	
Queue Length 95th (m)	2.7	0.0	0.0	0.8	0.0	
Control Delay (s)	14.0	0.0	0.0	9.0	0.0	
Lane LOS	B			A		
Approach Delay (s)	14.0	0.0		0.4		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			41.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 22: Fallis Line & (Ar) Res. Access

Total Volumes - 2030
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	30	0	0	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	33	0	0	21	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	397					
pX, platoon unblocked						
vC, conflicting volume			33		16	16
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			33		16	16
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1579		1002	1063
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	33	0	21			
Volume Left	0	0	21			
Volume Right	33	0	0			
cSH	1700	1700	1002			
Volume to Capacity	0.02	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.5			
Control Delay (s)	0.0	0.0	8.7			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.7			
Approach LOS			A			
Intersection Summary						
Average Delay		3.4				
Intersection Capacity Utilization		13.3%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line & (Br) Res. Access

Total Volumes - 2030
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	30	70	0	19	44	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	76	0	21	48	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	318					
pX, platoon unblocked						
vC, conflicting volume			109		91	71
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			109		91	71
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	100
cM capacity (veh/h)			1482		909	992
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	109	21	48			
Volume Left	0	0	48			
Volume Right	76	0	0			
cSH	1700	1482	909			
Volume to Capacity	0.06	0.00	0.05			
Queue Length 95th (m)	0.0	0.0	1.3			
Control Delay (s)	0.0	0.0	9.2			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay		2.5				
Intersection Capacity Utilization		15.9%	ICU Level of Service	A		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 18: Fallis Line & (Ac) Comm. Access

Total Volumes - 2030
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	95	5	5	58	10	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	5	5	63	11	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	241					
pX, platoon unblocked						
vC, conflicting volume			109		180	106
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			109		180	106
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1482		807	948
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	109	68	16			
Volume Left	0	5	11			
Volume Right	5	0	5			
cSH	1700	1482	849			
Volume to Capacity	0.06	0.00	0.02			
Queue Length 95th (m)	0.0	0.1	0.4			
Control Delay (s)	0.0	0.6	9.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.6	9.3			
Approach LOS			A			
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		17.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line & (Bc) Comm. Access

Total Volumes - 2030
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	92	28	7	61	60	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	100	30	8	66	65	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	154					
pX, platoon unblocked						
vC, conflicting volume			130		197	115
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			130		197	115
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	99
cM capacity (veh/h)			1455		788	937
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	130	74	74			
Volume Left	0	8	65			
Volume Right	30	0	9			
cSH	1700	1455	803			
Volume to Capacity	0.08	0.01	0.09			
Queue Length 95th (m)	0.0	0.1	2.3			
Control Delay (s)	0.0	0.8	9.9			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.8	9.9			
Approach LOS			A			
Intersection Summary						
Average Delay		2.9				
Intersection Capacity Utilization		19.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2030

PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	45	625	56	43	584
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	49	679	61	47	635
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (m)					94	
pX, platoon unblocked	0.84					
vC, conflicting volume	1408	679			740	
vC1, stage 1 conf vol	679					
vC2, stage 2 conf vol	728					
vCu, unblocked vol	1390	679			740	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	84	89			95	
cM capacity (veh/h)	347	451			866	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	103	679	61	47	635	
Volume Left	54	0	0	47	0	
Volume Right	49	0	61	0	0	
cSH	390	1700	1700	866	1700	
Volume to Capacity	0.27	0.40	0.04	0.05	0.37	
Queue Length 95th (m)	8.0	0.0	0.0	1.3	0.0	
Control Delay (s)	17.5	0.0	0.0	9.4	0.0	
Lane LOS	C			A		
Approach Delay (s)	17.5	0.0		0.6		
Approach LOS	C					
Intersection Summary						
Average Delay		1.5				
Intersection Capacity Utilization		47.9%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

25: (Dc) Comm. Access & CR10

Total Volumes - 2030
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	38	35	646	41	33	601
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	38	702	45	36	653
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLT
Median storage veh						2
Upstream signal (m)						190
pX, platoon unblocked	0.85					
vC, conflicting volume	1427	702			747	
vC1, stage 1 conf vol	702					
vC2, stage 2 conf vol	725					
vCu, unblocked vol	1415	702			747	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	91			96	
cM capacity (veh/h)	346	438			862	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	79	702	45	36	653	
Volume Left	41	0	0	36	0	
Volume Right	38	0	45	0	0	
cSH	385	1700	1700	862	1700	
Volume to Capacity	0.21	0.41	0.03	0.04	0.38	
Queue Length 95th (m)	5.8	0.0	0.0	1.0	0.0	
Control Delay (s)	16.8	0.0	0.0	9.4	0.0	
Lane LOS	C			A		
Approach Delay (s)	16.8	0.0		0.5		
Approach LOS	C					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			44.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 22: Fallis Line & (Ar) Res. Access

Total Volumes - 2030
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	25	0	0	24	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	27	0	0	26	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			27		14	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			27		14	14
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	100
cM capacity (veh/h)			1587		1005	1066
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	27	0	26			
Volume Left	0	0	26			
Volume Right	27	0	0			
cSH	1700	1700	1005			
Volume to Capacity	0.02	0.00	0.03			
Queue Length 95th (m)	0.0	0.0	0.6			
Control Delay (s)	0.0	0.0	8.7			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.7			
Approach LOS			A			
Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

20: Fallis Line & (Br) Res. Access

Total Volumes - 2030
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	25	59	0	24	57	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	64	0	26	62	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	335					
pX, platoon unblocked						
vC, conflicting volume			91		85	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			91		85	59
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	100
cM capacity (veh/h)			1504		916	1006
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	91	26	62			
Volume Left	0	0	62			
Volume Right	64	0	0			
cSH	1700	1504	916			
Volume to Capacity	0.05	0.00	0.07			
Queue Length 95th (m)	0.0	0.0	1.7			
Control Delay (s)	0.0	0.0	9.2			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			14.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

17: Fallis Line & (Ac) Comm. Access

Total Volumes - 2030
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	78	6	6	75	14	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	85	7	7	82	15	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	252					
pX, platoon unblocked						
vC, conflicting volume			91		183	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			91		183	88
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1504		803	970
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	91	88	22			
Volume Left	0	7	15			
Volume Right	7	0	7			
cSH	1700	1504	847			
Volume to Capacity	0.05	0.00	0.03			
Queue Length 95th (m)	0.0	0.1	0.6			
Control Delay (s)	0.0	0.6	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.6	9.4			
Approach LOS			A			
Intersection Summary						
Average Delay		1.3				
Intersection Capacity Utilization		18.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 16: Fallis Line & (Bc) Comm. Access

Total Volumes - 2030
SAT Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	76	35	9	80	66	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	38	10	87	72	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	150					
pX, platoon unblocked						
vC, conflicting volume			121		208	102
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			121		208	102
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		91	99
cM capacity (veh/h)			1467		775	954
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	121	97	80			
Volume Left	0	10	72			
Volume Right	38	0	9			
cSH	1700	1467	791			
Volume to Capacity	0.07	0.01	0.10			
Queue Length 95th (m)	0.0	0.2	2.6			
Control Delay (s)	0.0	0.8	10.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.8	10.1			
Approach LOS			B			
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization			22.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

24: (Cc) Comm. Access & CR10

Total Volumes - 2030

SAT Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	52	52	619	78	55	639
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	57	57	673	85	60	695
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage veh			2		2	
Upstream signal (m)					85	
pX, platoon unblocked	0.85					
vC, conflicting volume	1487	673			758	
vC1, stage 1 conf vol	673					
vC2, stage 2 conf vol	814					
vCu, unblocked vol	1485	673			758	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	88			93	
cM capacity (veh/h)	320	455			854	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	113	673	85	60	695	
Volume Left	57	0	0	60	0	
Volume Right	57	0	85	0	0	
cSH	376	1700	1700	854	1700	
Volume to Capacity	0.30	0.40	0.05	0.07	0.41	
Queue Length 95th (m)	9.5	0.0	0.0	1.7	0.0	
Control Delay (s)	18.7	0.0	0.0	9.5	0.0	
Lane LOS	C			A		
Approach Delay (s)	18.7	0.0		0.8		
Approach LOS	C					
Intersection Summary						
Average Delay		1.6				
Intersection Capacity Utilization		52.0%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

25: (Dc) Comm. Access & CR10

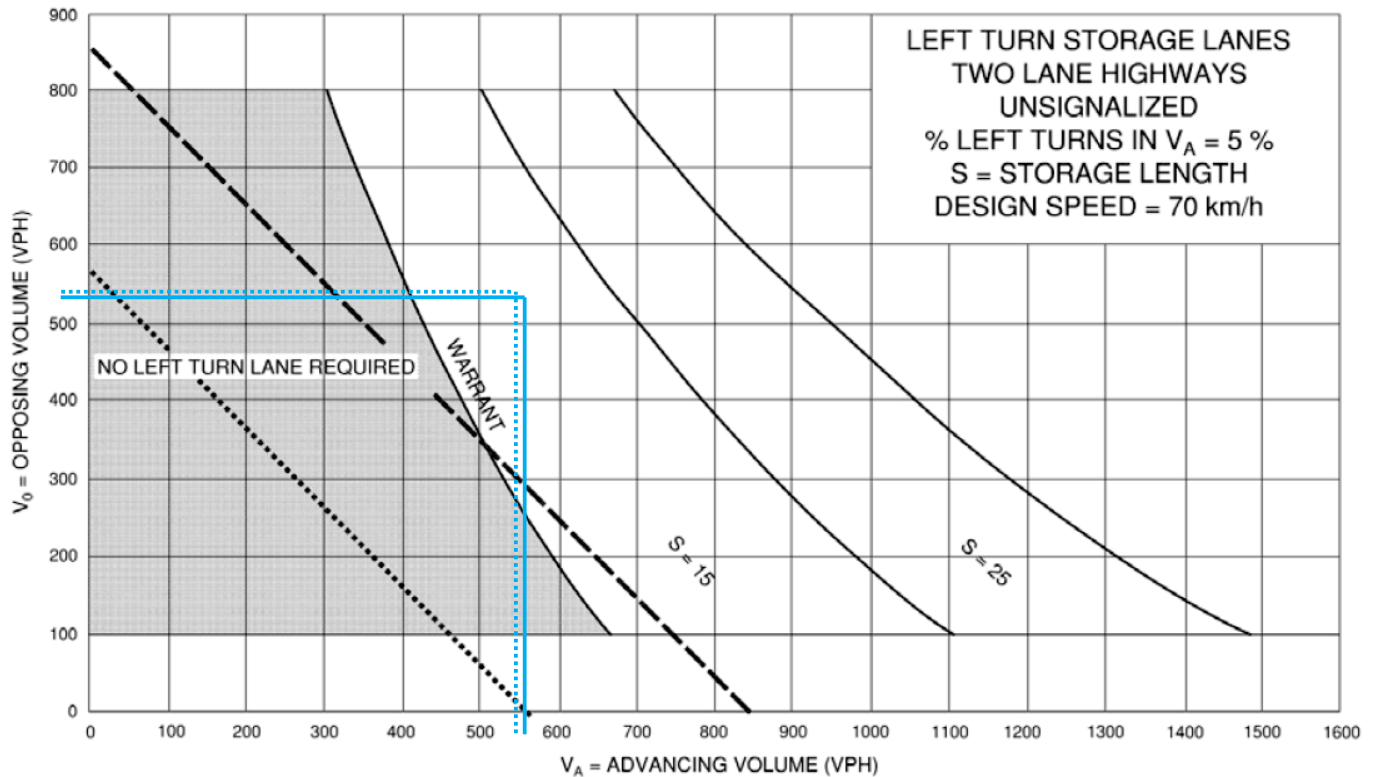
Total Volumes - 2030
SAT Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	39	39	658	61	41	650
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	42	715	66	45	707
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLT
Median storage veh						2
Upstream signal (m)						182
pX, platoon unblocked	0.87					
vC, conflicting volume	1511	715			782	
vC1, stage 1 conf vol	715					
vC2, stage 2 conf vol	796					
vCu, unblocked vol	1513	715			782	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	90			95	
cM capacity (veh/h)	323	431			836	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	85	715	66	45	707	
Volume Left	42	0	0	45	0	
Volume Right	42	0	66	0	0	
cSH	369	1700	1700	836	1700	
Volume to Capacity	0.23	0.42	0.04	0.05	0.42	
Queue Length 95th (m)	6.6	0.0	0.0	1.3	0.0	
Control Delay (s)	17.7	0.0	0.0	9.5	0.0	
Lane LOS	C			A		
Approach Delay (s)	17.7	0.0		0.6		
Approach LOS	C					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			45.9%	ICU Level of Service		A
Analysis Period (min)			15			

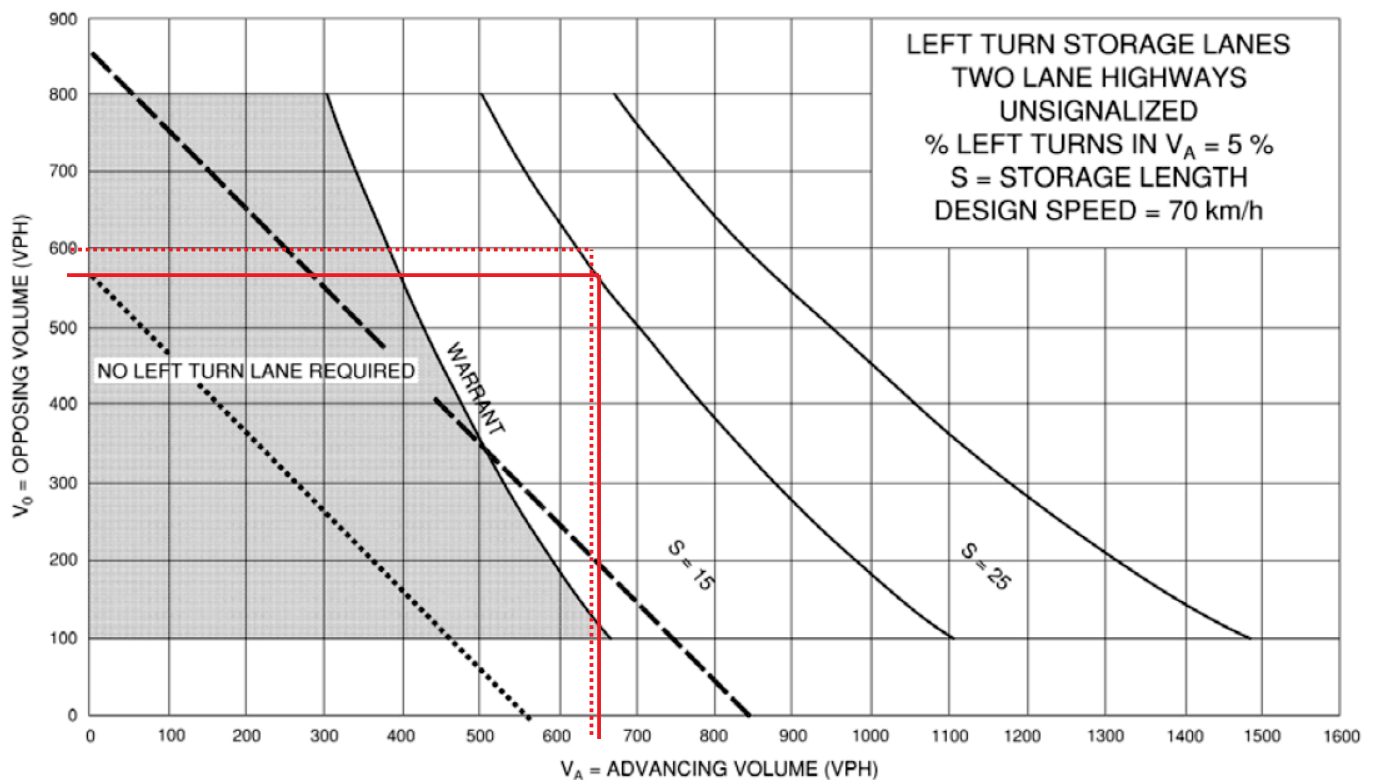
Appendix K

Left Turn Lane Warrants Review

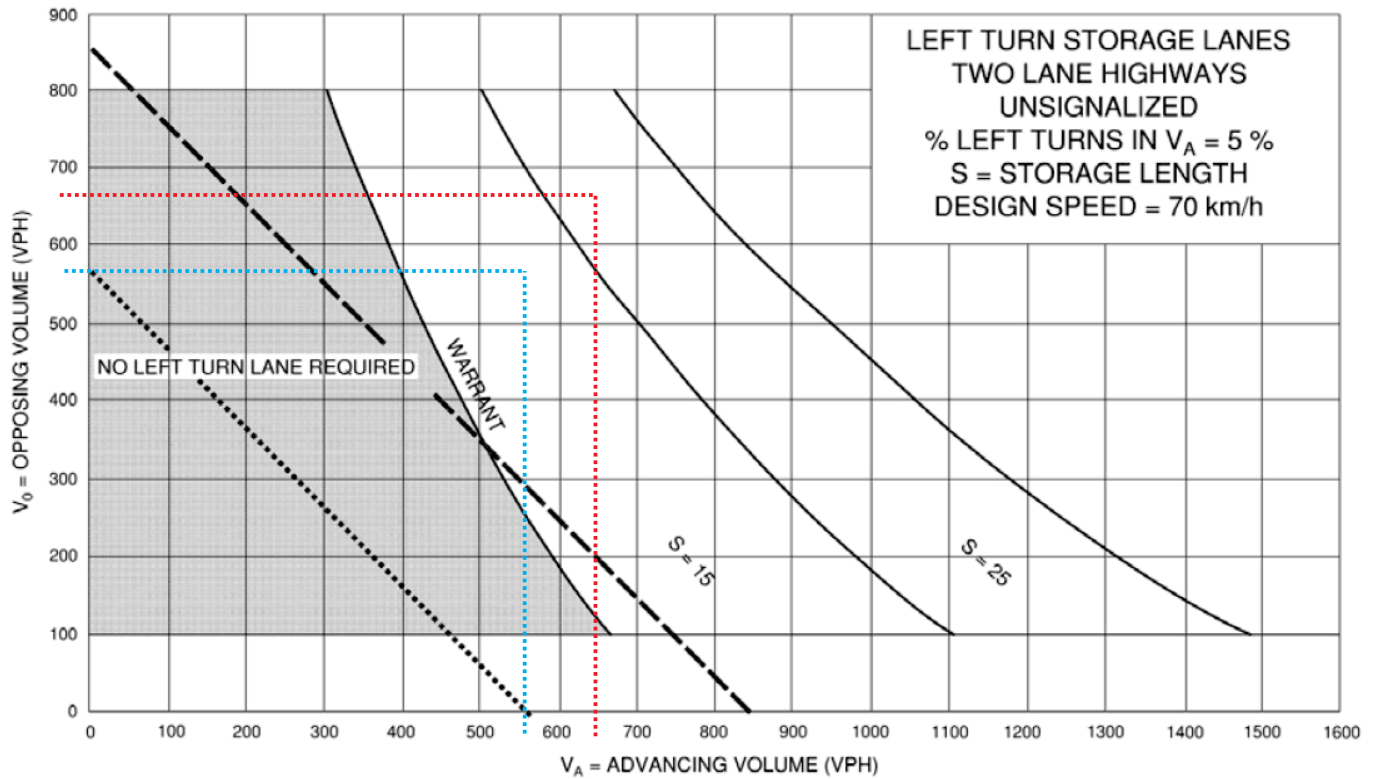
At CR10 Entrances - Morning Peak Hour



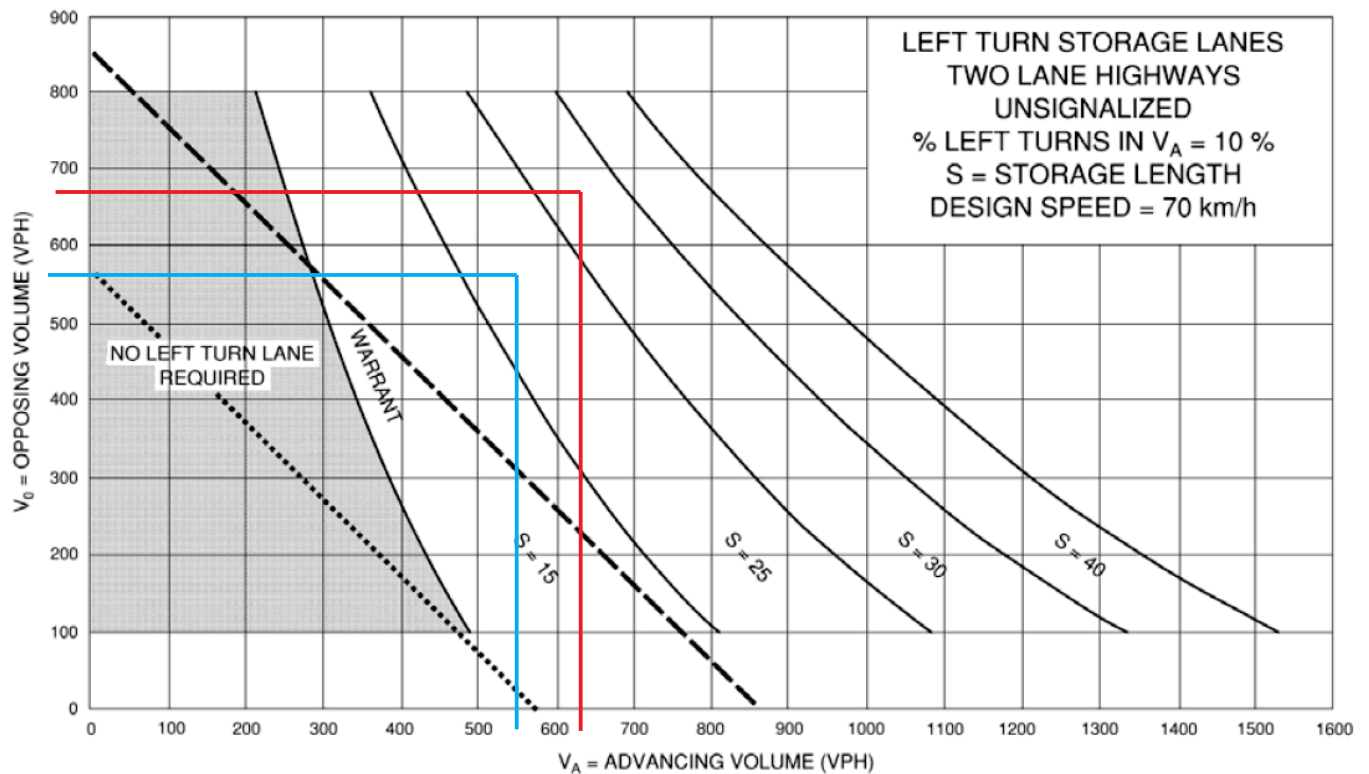
At CR10 - AM peak hour	Total Volumes 2025		Total Volumes 2030	
	North Access	South Access	North Access	South Access
Opposing Volume (V_0)	528	542	585	599
Advance Volume (V_A)	561	544	648	631
Left Turn Traffic Volume (V_L)	36	28	36	28
% Left Turns in V_A	5% (6.4%)	5% (5.1%)	5% (5.5%)	5% (4.4%)
	—	⋯	—	⋯



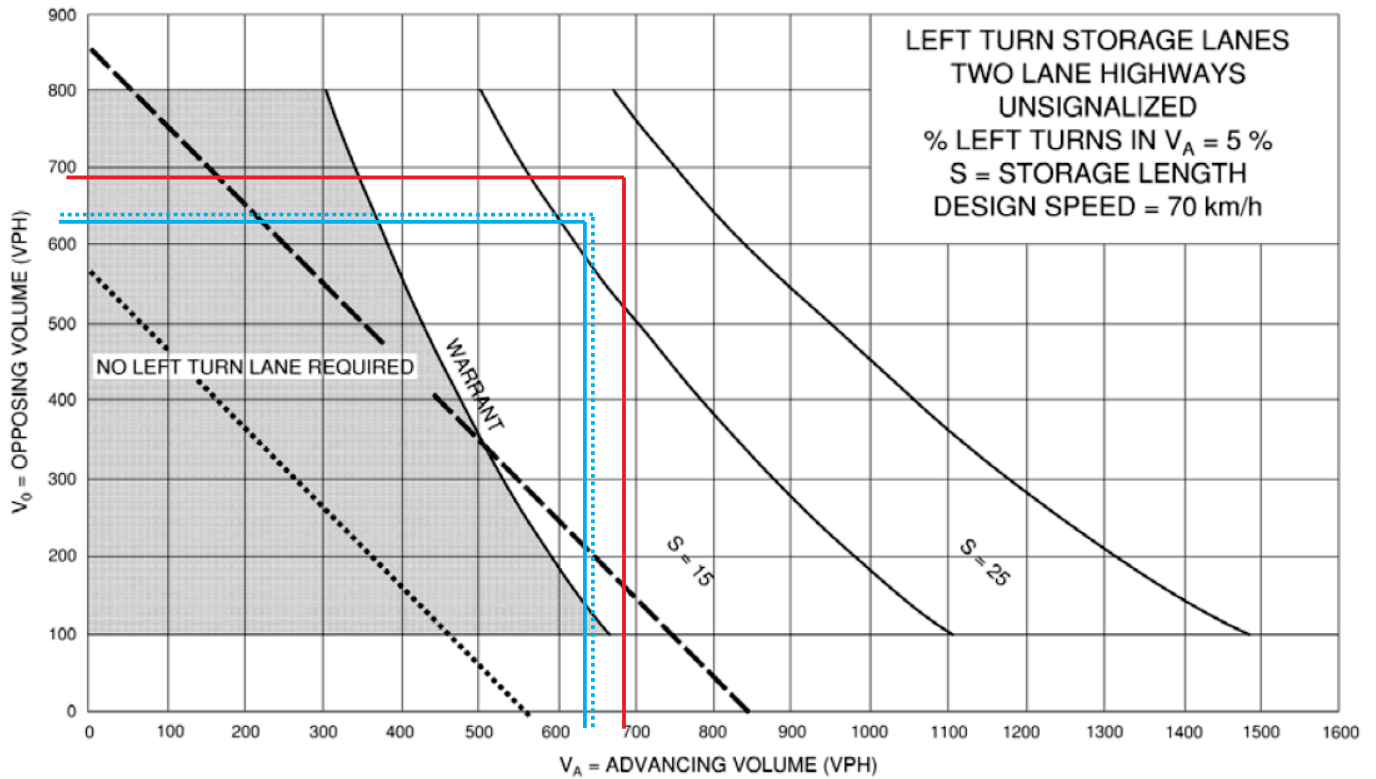
At CR10 Entrances - Afternoon Peak Hour



At CR10 - PM peak hour	Total Volumes 2025		Total Volumes 2030	
	North Access	South Access	North Access	South Access
Opposing Volume (V_0)	572	578	681	687
Advance Volume (V_A)	548	555	627	634
Left Turn Traffic Volume (V_L)	43	33	43	33
% Left Turns in V_A	10% (7.8%)	5% (5.9%)	10% (6.9%)	5% (5.2%)



At CR10 Entrances - Saturday Peak Hour



At CR10 - SAT peak hour	Total Volumes 2025		Total Volumes 2030	
	North Access	South Access	North Access	South Access
Opposing Volume (V_0)	607	629	697	719
Advance Volume (V_A)	612	609	694	691
Left Turn Traffic Volume (V_L)	55	41	55	41
% Left Turns in V_A	10% (9.0%)	10% (6.7%)	10% (7.9%)	5% (5.9%)
	—	⋯	—	⋯

