

MEMO



TO: David Shelsted, MBA, P. Eng.
Director of Roads, City of Greater Sudbury

FROM: Mike Walters, P. Eng.

DATE: March 9, 2018

SUBJECT: Kingsway Sports and Entertainment Complex
Traffic Impact Study Addendum

OUR FILE: 17-6373

This memo has been prepared as an addendum to the December 2017 traffic impact study (TIS), and provides additional information and responses to the comments provided by the City of Greater Sudbury on the TIS. The City's comments were documented in a memorandum dated February 16, 2018. Also received was a memorandum prepared by WSP, dated February 16, 2018. WSP was retained by the City of Greater Sudbury to provide an independent peer review of the TIS. Both the City's comments and WSP's comments touch on largely the same points. That said, the comments have been separated out and addressed in this addendum.

The proposed site plan is provided for reference in **Attachment 1**.

1.0 TIS Comments

The TIS comments from the City focused on:

- Ø Arrival rates for motorists prior to an event. Justification needs to be provided for the arrival rate assumed in the TIS report
- Ø Justification needs to be provided for interaction reductions that are assumed in the TIS report
- Ø Details on the types of agreements that will need to be in place and how they will be enforced to ensure parking is available on event nights needs to be provided
- Ø Identify the amount of site development that can occur prior to the surrounding road intersections operating over capacity and detail what measures could be implemented to mitigate these capacity constraints
- Ø Provide a phasing plan which indicates how much more additional development can occur with the proposed road links added
- Ø Provide a justification for why a dual left turn lane is required on Kingsway
- Ø Discuss the expected delay to transit vehicles accessing the site during event nights
- Ø Provide details on the expected queue length, how the bus loop signals will operate and what the expected delay will be for buses exiting the loop
- Ø Provide details on how vehicles, pedestrians and transit buses will circulate in the area of the bus loop. Include details on where fencing will be provided, where the parking lots will exit and where marked crossing areas are proposed. Details must be provided on how site access will be controlled if and when the temporary parking lot areas are developed.

- Ø Clarify the number of pedestrian crossings proposed, if a protected crossing is proposed for the easterly crossing, and how pedestrians will safely access the parking lots on the north side of Street A.
- Ø Include a detailed analysis of cycling infrastructure that would be recommended on Street A, Street C and Levesque Street using the three-step bicycle facility selection process detailed in OTM Book 18.
- Ø Include details on how TDM measures will be operated or delivered, how they will be funded and how the ongoing success of these measures will be measured and reported. The TIS should include details on the number of vehicle trips that would be reduced through the implementation of these TDM measures.

The TIS comments from WSP (which are largely similar to the City's comments) included:

- Ø Providing a rationale for the inter-land-use trip reduction rates applied for Business Park to Arena, Arena from Business Park, and Casino to Arena
- Ø Justify the use of the 79% arrival rate for the hour leading up to an event with data from more recent study or studies
- Ø Justify the recommendation for dual eastbound left turn lanes on the Kingsway
- Ø Identify agreements that need to be in place to address the deficiency in the parking required by forecast demand
- Ø Clarify how the vacant lots would be maintained in winter to facilitate parking
- Ø Financing/structure of the transit shuttles needs to be described
- Ø Provide rationale for the modal split attributable to the TDM measures
- Ø Provide solutions to mitigate capacity constraints on the surrounding road network and develop thresholds to indicate what amount of development can be accommodated before additional road improvements are necessitated
- Ø Clarify the proposed bus loop and signal prioritization scheme

2.0 TIS Comment Responses

2.1 Arrival/Departure Rate

It is recognized that not all motorists will arrive to the site in the hour preceding an event. The City of Greater Sudbury's previous study on Arena site selection identified an arrival rate of 88% (i.e., 88% of motorists would arrive at the arena in the hour preceding an event, meaning 12% would either arrive earlier or later than the preceding hour). It is understood that the 88% that was used in the City's study was based on a number provided by PricewaterhouseCoopers (PwC). At the time of preparing the Kingsway Event Centre TIS, no details were provided on how PwC arrived at this value.

As a result, the TIS used a 1976 study ("Traffic Considerations for Special Events") to help guide the determination of this arrival rate. The 1976 study identified an arrival rate of 79% in the preceding hour. This lower value took into consideration the potential for motorists to take part in other activities on site prior to the event. Given the anticipated other uses that are proposed for the area, this value appeared to be appropriate for use in the TIS.

After the Kingsway Event Centre TIS was submitted, PwC clarified that the 88% arrival rate was a number used in another study (for the Thunder Bay Event Centre). When reviewing the documentation prepared for that site, the transportation consultant identified arrival rates that would be typical for an OHL game; however, the documentation did not go into detail on how the arrival rates were determined (i.e., whether similar sites were surveyed, etc.). The Thunder Bay report also noted that a typical auto occupancy rate for a venue such as this would be around 2.5 (persons/vehicle).

As a double-check of the appropriateness of the 79% arrival rate assumption, the trip generation values were revisited. The proposed auto-occupancy rate for event goers was based on surveys undertaken by City staff at downtown locations prior to a Sudbury Wolves game. That rate was 2.19. This is lower than typical for events of this kind (as noted above). When reviewing the auto occupancy rate data, a larger than normal percentage of single-occupant vehicles was recorded. If the majority (75%) of single-occupant vehicles are removed from the survey data (since it is possible that many of these motorists were parking downtown for reasons other than attending the game), the auto occupancy rate increases to 2.46 (which is more in line with typical auto occupancy rates for arenas and stadia). When the Corel Centre in Ottawa was opened, traffic monitoring studies were undertaken to gauge the appropriateness of the parking facilities provided. Three hockey games in 1996 were surveyed. Those hockey games produced auto occupancy rates of 2.6, 2.5 and 2.5. Additionally, transit modal splits were around 5-7%, which is similar to the transit modal split assumed for the Kingsway site. The Corel Centre auto occupancy rate data is consistent with the auto occupancy rate noted in the Thunder Bay report.

As shown in *Table 1*, adjusting the auto occupancy rate assumption to a rate that is more consistent with typical arena and stadia rates, and applying the 88% arrival rate factor (even though the derivation of this factor is still unknown), yields the same order of magnitude trips as the 79% arrival rate factor with the lower auto occupancy rate.

Table 1: Vehicle Trip Generation Sensitivity

	Peak direction, peak hour trips		
	Pre-game inbound	Pre-game inbound	Pre-game inbound
Number of spectators	5,800	5,800	5,800
% traveling via transit	5%	5%	5%
# traveling via transit	290	290	290
% traveling via auto	95%	95%	95%
# traveling via auto	5,510	5,510	5,510
Average auto occupancy	2.19	2.19	2.46
# of auto trips	2,515	2,515	2,240
% traveling during peak hour	79%	88%	88%
Peak hour auto trips	1,985	2,215	1,970

The 1,985 vehicle trips arriving during the preceding hour is a reasonable estimate for an event night at the Kingsway site.

2.2 Interaction Between Land Uses

The December 2017 TIS identified two different types of interaction between complementary land uses within the study area:

- Business park employees staying on-site after work to attend a game or other event; and
- Business park employees staying on-site after work to visit the casino.

The first type of interaction represents a reduction in both the number of outbound business park trips, and the number of inbound arena trips. (The employee is not leaving the site as they normally would after work; a seat at the event is filled by someone who is already on site and does not need to travel on the Kingsway.)

The second type of interaction represents a reduction in the number of outbound business park trips only. Like an employee attending an event, the employee would not be leaving the site as they normally would after work. However, it is assumed that the business park represents an additional market rather than a redistribution of the baseline market.

The interaction calculations were reviewed as part of the comment response, and the calculations for the business park / arena distribution have been adjusted following this review. The procedure for calculating this interaction has been revised as follows:

- The daytime population of the business park has been estimated at approximately 4,000 employees. This calculation has been based upon a comparison of the PM peak hour business park trip generation rates as a function of the total acreage (16.84 trips per acre) vs. the number of employees (0.39 trips per employee). At these rates, both a 93.67-acre business park and a 4,000-employee business park would generate approximately 1,575 vehicle trips during the PM peak hour.
- The population of Greater Sudbury is in the order of 160,000 residents. The daytime population of the adjacent business park (4,000 employees) would be 2.5% of that total population. If event-goers are drawn proportionally according to population, a sold-out 5,800-seat event would draw 2.5% (145 attendees) from the business park. However, the distribution of Wolves season ticket holders is not uniform across the City; some areas are more heavily represented than others. It is anticipated that the adjacent business park would be such an area, given the proximity and relative ease in accessing the site compared to other parts of the city. Therefore, a 2x weighting was applied such that 5% of event-goers, or 290 attendees, are drawn from the business park.
- After applying a 5% modal split reduction, 2.19 vehicle occupancy rate, and 79% peak hour arrival rate, the business park interaction would offset 100 inbound arena trips during the pre-game peak hour.
- The 290 attendees would also offset 30 outbound business park trips during the pre-game peak hour. (There would also be additional offset trips during the preceding hours.)

The interaction calculations between the business park and casino have been maintained as in the TIS. Specifically, it has been assumed that 5% of outbound business park trips will be destined to the casino and will therefore remain on site. This equates to 65 trips during the PM peak hour, and 20 trips during the pre-game peak hour. This was felt to be an appropriate reduction, and possibly conservative, considering that the casino will also include restaurant space that will likely be a draw to some

employees at the end of the work day. The trip reduction could also include trips made to complementary uses within the business park; while exact uses have not yet been defined for individual blocks within the business park, it is envisioned that some blocks could be developed with additional uses that may attract employees at the end of the work day.

Table 2 illustrates the updated trip generation figures for the site after accounting for the adjusted interaction percentages during the pre-game peak hour. The effect has been an increase of 75 inbound vehicle trips and an increase of 5 outbound vehicle trips, compared to the December 2017 TIS analyses.

Figure 1 illustrates the adjusted site traffic volumes during the pre-game peak hour, and Figure 2 illustrates the adjusted total future traffic volumes during the pre-game peak hour. (Figure 2 also reflects changes to background traffic volumes as outlined in Section 2.4.)

Table 2: Updated Trip Generation

	Weekday PM peak hour			Weekday pre-game peak hour			Weekday post-game peak hour			Saturday peak hour		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Arena	35	15	20	1,985	1,985	0	2,515	0	2,515	80	40	40
Casino	380	185	195	310	160	150	290	150	140	265	135	130
Hotel	120	60	60	120	60	60	30	30	0	145	80	65
Twin pad arena	65	25	40	105	80	25	80	0	80	160	80	80
Business park	1,575	315	1,260	485	100	385	105	35	70	340	125	215
Subtotal:	2,175	600	1,575	3,005	2,385	620	3,020	215	2,805	990	460	530
<i>Interaction reductions:</i>												
Business park to arena	0	0	0	-30	0	-30	0	0	0	0	0	0
Arena from business park	0	0	0	-100	-100	0	0	0	0	0	0	0
Business park to casino	-65	0	-65	-20	0	-20	0	0	0	0	0	0
Total net site trips:	2,110	600	1,510	2,855	2,285	570	3,020	215	2,805	990	460	530

The effect of the additional pre-game trips was reviewed at the Kingsway intersections with Street "A" (see Table 3) and with Street "C" / Levesque Street (see Table 4). (The additional trips were also included in the analyses of other constrained intersections in New Sudbury, documented in Section 2.4.) Intersection analysis worksheets are provided in Attachment 2.

Figure 1: Adjusted Site Traffic Volumes, Pre-Game Peak Hour

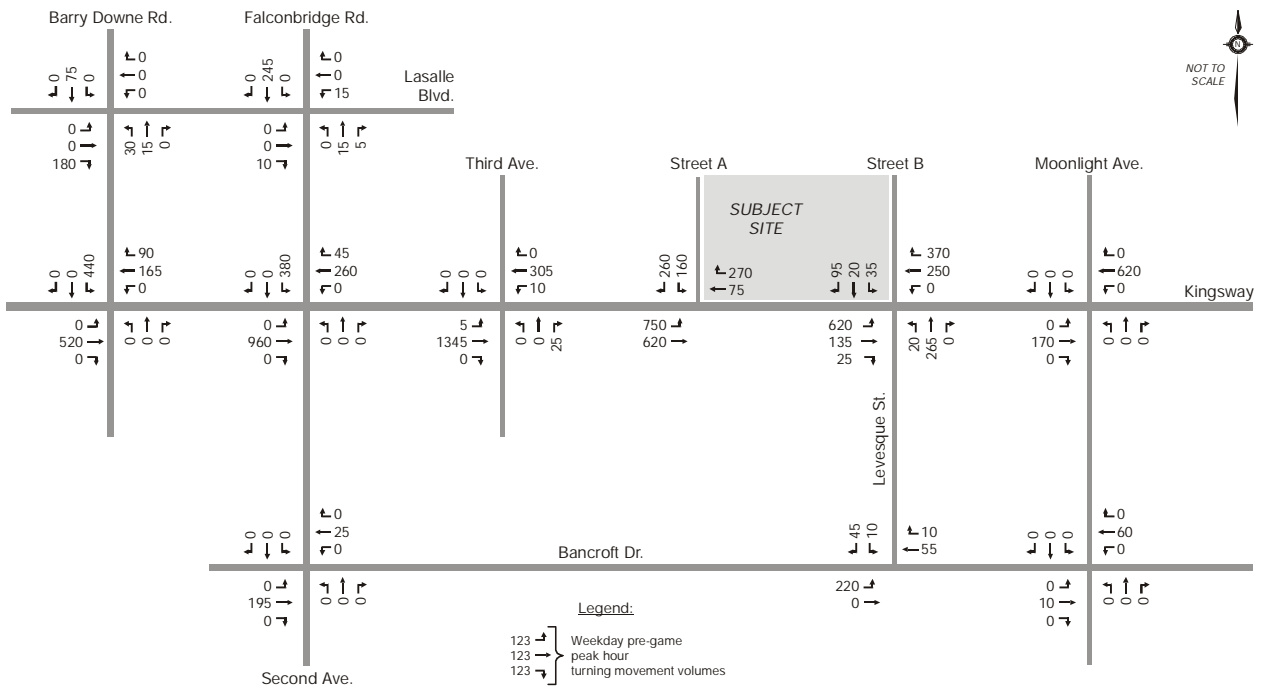


Figure 2: Adjusted Total Future Traffic Volumes, Pre-Game Peak Hour

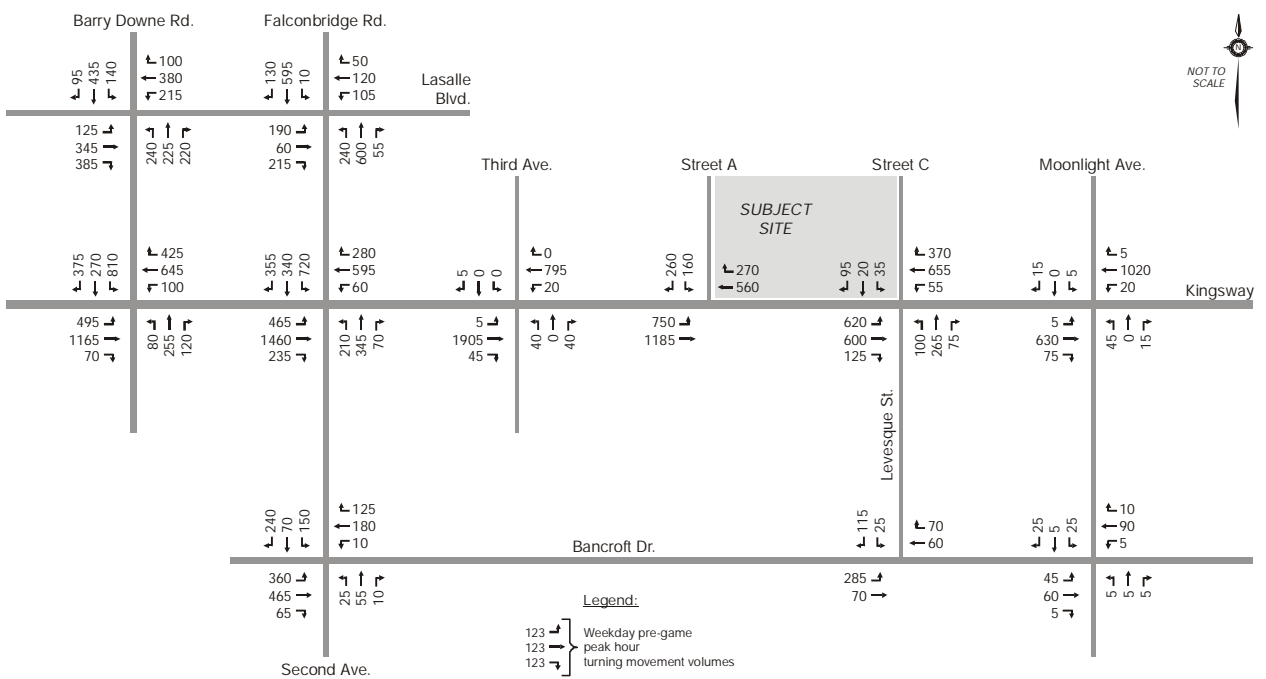


Table 3: Pre-Game Peak Hour Intersection Operations, Kingsway at Street "A"

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Total future (single EB left turn lane)	C	20.3	EB left	0.90	C	30.8	212
Total future (dual EB left turn lanes)	B	19.3	N/A	—	—	—	—

Table 4: Pre-Game Peak Hour Intersection Operations, Kingsway at Street "C" / Levesque Street

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Total future (single EB left turn lane)	C	31.6	NB left	0.38	D	40.8	38
			NB through	0.95	E	75.6	134
			SB left	0.51	E	64.1	23
Total future (dual EB left turn lanes)	C	28.8	NB left	0.38	D	36.1	37
			NB through	0.87	E	56.0	124

Similar to the original TIS analyses, the Kingsway and Street "A" intersection is projected to operate at LOS B to C during the pre-game peak hour, and the Kingsway and Street "C" intersection is projected to operate at LOS C.

2.3 Usage of Off-Site Parking

The surrounding land use blocks (Blocks 7-11) will be registered on title for the use of parking during events at the Event Centre. This will ensure that this parking is made available to the Event Centre to accommodate any overflow parking that may be required for a particular event.

In the interim, it is anticipated that Blocks 7-11 will be vacant and that they will be able to be devoted to overflow parking. In this case, winter maintenance will be undertaken by the City as the operator of the arena. In the longer term, as the blocks surrounding the arena are developed, overflow parking will be accommodated within parking lots serving the surrounding development (potentially on Blocks 1-12, 25, and 26); winter maintenance would typically be the responsibility of the landowners, although agreements may be required for a higher standard of maintenance than would otherwise be provided.

When the overflow parking areas are used for a higher-attendance event, there will be pedestrian crossing demand across Street "A" between the overflow parking area and the arena. Controlled pedestrian crossings are proposed at two locations: one on the east side of the exit from the bus loop, and one on the west side of the arena's main driveway to Street "A."

The bus loop crossing will be controlled by traffic signals (which will also be used by buses exiting the bus loop). It will direct pedestrians to a wide walkway leading directly to the main arena entrance on the east side of Festival Square. This route and crossing location closely follow the typical pedestrian desire line from the arena entrance to the overflow parking areas in Blocks 9 through 11.

The main driveway crossing will lead to a walkway to the northeast corner of the arena, and from there west or south to either entrance, and will closely follow the typical pedestrian desire line to the overflow parking in Blocks 7 and 8. The specific form of pedestrian crossing control has not yet been identified (full traffic signals; intersection pedestrian signal; pedestrian crossover). These details will be determined as part of the site plan application.

2.4 Phasing of Business Park

2.4.1 Adjustment of Volume Forecasts for Maley Drive Extension

The TIS analyses were prepared for a 5-year horizon (2022). Those analyses did not consider the extension of Maley Drive westerly from Barry Downe Road to LaSalle Boulevard, which is expected to be complete by 2019. The extension of Maley Drive will impact the traffic volumes along LaSalle Boulevard, Falconbridge Road and the Kingsway. Once Maley Drive is extended, the volumes along LaSalle Boulevard, Falconbridge Road and the Kingsway are expected to be lower (since the Maley Drive extension will divert some of this traffic). City of Greater Sudbury staff provided a volume plot illustrating the modeled change in PM peak hour link volumes projected for 2021, following the opening of the Maley Drive extension:

- The largest change in volume is projected on Lasalle Boulevard east of Notre Dame Avenue, where a decrease of approximately 1,030 vph was modeled.
- Closer to Barry Downe Road, the decrease on LaSalle Boulevard was modeled at approximately 420 to 780 vph.
- On the Kingsway, a decrease of approximately 290 vph was modeled west of Barry Downe Road.
- On Falconbridge Road, a decrease of approximately 350 vph was modeled north of the Kingsway, and a decrease of 560 vph was modeled north of LaSalle Boulevard.

The volume plot is provided for reference in **Attachment 3**.

The model results do not indicate the effect on individual turning movements, or at times other than the PM peak hour. To estimate these effects, the following adjustments were made:

- At the Kingsway and Barry Downe Road, the turning volumes between the west and the north legs were reduced by 15%, reflecting motorists using Maley Drive as an alternate route to New Sudbury. Of these diverted trips, one-third was assumed to be destined north of Lasalle Boulevard, one-third was assumed to be destined to Lasalle Boulevard between Barry Downe Road and Falconbridge Road, and one-third was assumed to be destined south of Lasalle Boulevard; these adjustments were then carried through the Lasalle Boulevard and Barry Downe Road intersection.
- At the Kingsway and Falconbridge Road, the turning volumes between the west and the north legs were reduced by 15%. Of these diverted trips, one-third was assumed to originate south of Lasalle Boulevard, reflecting use of Maley Drive as an alternate route to New Sudbury, and the remaining two-thirds were carried through the Lasalle Boulevard intersection, reflecting motorists diverting to Maley Drive as an alternate through route.
- At Bancroft Drive and Second Avenue, the turning volumes between the west and north legs were reduced by 5%, reflecting motorists diverting to Maley Drive as an alternate through route.

These adjustments were also carried north-south along Falconbridge Road through the intersections with the Kingsway and with Lasalle Boulevard.

- At LaSalle Boulevard and Falconbridge Road, the turning volumes between the west and north legs were reduced by 50%, reflecting motorists diverting to Maley Drive as an alternate through route. These adjustments were also carried through the Lasalle Boulevard and Barry Downe Road intersection.
- At Lasalle Boulevard and Barry Downe Road, turning movements between the west and north legs were reduced by 15%, turning movements between the west and south legs were reduced by 5%, and the eastbound and westbound through movements were reduced by 10%, reflecting the use of Maley Drive as an alternate route to New Sudbury.

The PM and pre-game peak hour traffic volumes, revised to show the effect of the Maley Drive extension, are illustrated in the following figures:

- *Figure 3* illustrates the net impact of the Maley Drive extension on future background traffic volumes;
- *Figure 4* illustrates the projected future background traffic volumes with Maley Drive in place; and
- *Figure 5* illustrates the projected total future traffic volumes with Maley Drive in place.

Figure 3: Future Background Traffic — Net Impact of Maley Drive Extension

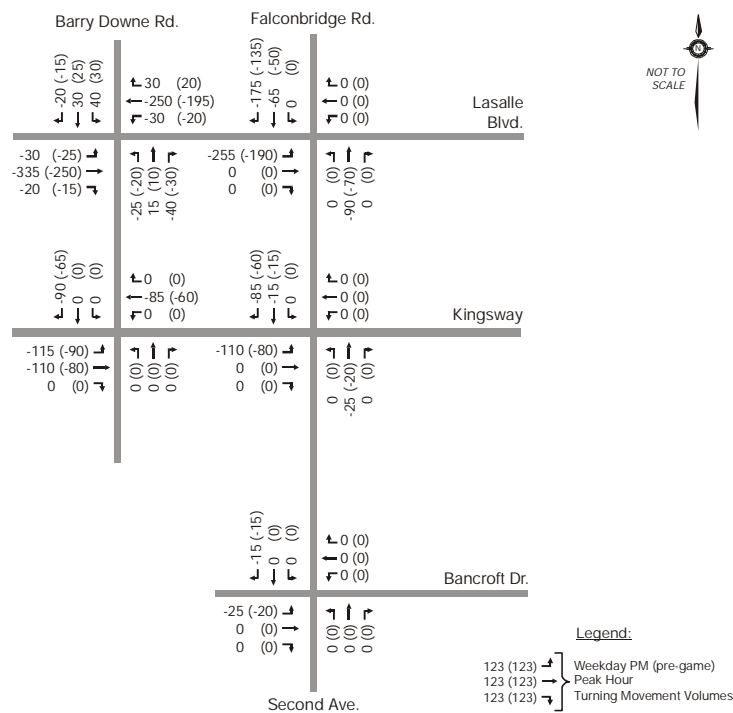


Figure 4: Future Background Traffic with Maley Drive Extension

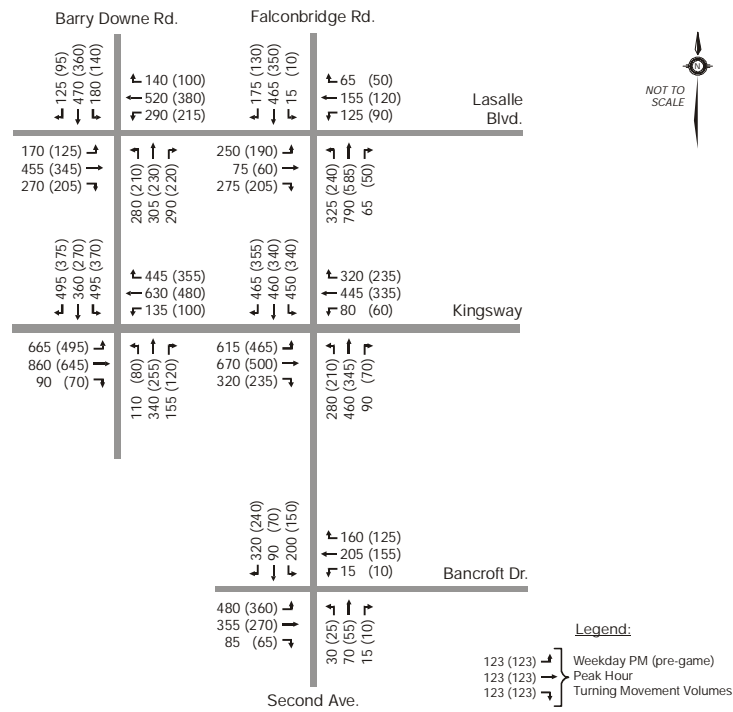
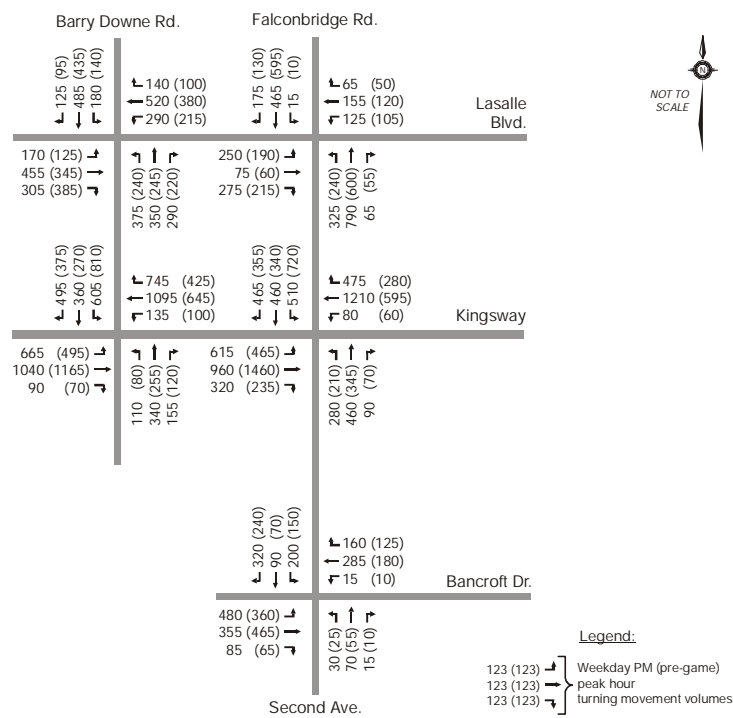


Figure 5: Total Future Traffic with Maley Drive Extension



2.4.2 Updated Intersection Operational Analyses

After considering the Maley Drive extension, the 2022 intersection operations were reviewed at the following key intersections, where future operational issues were identified in the TIS:

- LaSalle Boulevard and Barry Downe Road;
- Kingsway at Barry Downe Road; and
- Kingsway at Falconbridge Road.

Unless stated otherwise, the same operational parameters were assumed as in the original TIS analyses, both for base conditions and “mitigated” conditions (e.g., signal timing or phasing adjustments). “Critical movements” refer to movements identified as critical in the December 2017 analyses (even if diversion to Maley Drive has subsequently addressed those movements), as well as any new critical movements that have been identified due to changes in the traffic projections.

Lasalle Boulevard at Barry Downe Road

Table 5 and Table 6 present the revised intersection operations at Lasalle Boulevard and Barry Downe Road during the PM peak hour and the pre-game peak hour, respectively.

Table 5: PM Peak Hour Intersection Operations, Lasalle Boulevard at Barry Downe Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	D	48.0	EB left	0.74	E	68.1	65
			EB through	0.49	D	39.3	70
			WB left	0.91	E	78.9	123
			WB through	0.62	D	36.7	98
			NB left	0.97	F	95.2	129
			SB left	0.76	E	69.1	69
			SB through	0.88	E	59.7	105
Total future	E	56.0	EB left	0.74	E	68.1	65
			EB through	0.51	D	40.5	70
			WB left	0.91	E	78.9	123
			WB through	0.64	D	37.9	99
			NB left	1.18	F	151	178
			SB left	0.76	E	69.1	69
			SB through	0.93	E	66.5	114
Total future (mitigated)	D	53.6	EB left	0.74	E	68.1	65
			EB through	0.52	D	41.1	70
			WB left	1.00	F	103	135
			WB through	0.69	D	41.6	103
			NB left	1.04	F	104	166
			SB left	0.75	E	67.7	68
			SB through	0.93	E	66.9	114

During the PM peak hour, the intersection of Lasalle Boulevard and Barry Downe Road is expected to operate at LOS D both under future background conditions and (after mitigation) under total future conditions. The left turn movements are all identified as critical on the basis of poor level of service (due to fully protected operations and a 120-second cycle), although only the northbound left turn is projected to exceed capacity. There is little additional flexibility to further adjust signal timings within

the existing 120-second cycle, as the through movements are already at the minimum lengths that can accommodate pedestrian crossing intervals.

Table 6: Pre-Game Peak Hour Intersection Operations, Lasalle Boulevard at Barry Downe Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	D	38.7	EB left	0.62	E	56.0	49
			WB left	0.79	E	61.8	85
			NB left	0.88	E	77.5	101
			SB left	0.71	E	62.5	56
Future background (mitigated)	D	39.0	EB left	0.62	E	57.8	50
			WB left	0.80	E	64.4	89
			NB left	0.79	E	63.8	85
			SB left	0.71	E	65.0	60
Total future	D	40.3	EB left	0.63	E	59.6	50
			WB left	0.81	E	66.8	89
			NB left	0.86	E	71.7	105
			SB left	0.72	E	67.3	60

During the pre-game peak hour, all movements are expected to operate within capacity. The left turn movements are all critical due to operating at LOS E; this poor level of service is due to delays associated with to the fully protected left turn phases and the intersection's long cycle length.

Kingsway at Barry Downe Road

Table 7 and Table 8 present the revised intersection operations at the Kingsway and Barry Downe Road during the PM peak hour and the pre-game peak hour, respectively.

Table 7: PM Peak Hour Intersection Operations, Kingsway at Barry Downe Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	D	44.3	EB left	0.82	D	51.9	118
			WB left	0.73	E	75.8	77
			NB left	0.43	E	60.5	27
			NB through	0.70	E	57.6	71
			NB right	0.69	E	66.8	76
			SB left	1.03	F	97.0	133
Future background (mitigated)	D	41.3	EB left	0.85	D	54.8	121
			WB left	0.65	E	65.6	60
			NB left	0.44	E	60.4	26
			NB through	0.70	E	57.7	69
			SB left	0.88	E	66.3	118
Total future	E	70.5	EB left	0.89	E	66.3	126
			WB left	0.69	E	75.7	62
			WB through	1.12	F	112	208
			WB right	1.13	F	103	280
			NB left	0.48	E	68.7	28
			NB through	0.76	E	68.5	72
			NB right	0.34	D	39.5	55
			SB left	1.04	F	102	147

Table 7: PM Peak Hour Intersection Operations, Kingsway at Barry Downe Road (cont'd)

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Total future (new mitigated)	E	66.7	EB left	0.99	F	83.8	145
			WB left	0.69	E	72.8	59
			WB through	1.09	F	98.2	237
			WB right	1.09	F	87.3	257
			NB left	0.47	E	65.6	26
			NB through	0.74	E	65.0	68
			SB left	1.01	F	92.5	137

During the PM peak hour under future background conditions, the impact of diversion to Maley Drive is primarily anticipated to be experienced on the eastbound left turn (due to lower demand) and the southbound left turn (increased capacity due to shorter east-west actuated green times). Under total future conditions, the westbound through/right turn movements are still expected to exceed capacity, along with the southbound left turn, although the magnitude of the deficiency is lower due to reduced opposing traffic volume on the eastbound left turn. Further mitigation can be achieved by reducing the eastbound left turn green interval to 27 seconds.

Table 8: Pre-Game Peak Hour Intersection Operations, Kingsway at Barry Downe Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	C	32.7	WB left	0.56	E	56.2	46
			NB left	0.33	D	50.4	19
			NB right	0.55	D	51.2	50
			SB left	0.69	D	47.9	75
Future background (mitigated)	C	31.9	WB left	0.52	D	52.9	44
Total future	E	67.6	EB through	0.91	D	45.5	198
			WB left	0.58	E	62.6	49
			NB left	0.36	E	57.3	21
			NB through	0.60	D	53.5	54
			SB left	1.38	F	218	220
Total future (mitigated)	E	58.1	EB through	1.05	E	77.9	228
			WB left	0.58	E	59.8	44
			WB through	0.85	D	51.7	128
			NB left	0.36	D	54.6	19
			SB left	1.12	F	110	177

During the pre-game peak hour under future background conditions, the Maley Drive reassignment results in lower delays and a better level of service on the northbound and southbound approaches. Under total future conditions, the overall intersection level of service is unchanged at LOS E, but the v/c ratios will be reduced, in particular on the key movements approaching the subject site (eastbound through; southbound left turn).

Kingsway at Falconbridge Road

Table 9 and Table 10 present the revised intersection operations at the Kingsway and Falconbridge Road during the PM peak hour and the pre-game peak hour, respectively.

Table 9: PM Peak Hour Intersection Operations, Kingsway at Falconbridge Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	D	38.3	EB left	0.87	E	57.5	118
			WB left	0.52	E	63.0	37
			NB left	0.71	E	59.7	53
			SB left	0.83	E	60.4	89
Future background (mitigated)	D	38.0	EB left	0.84	D	54.9	104
			WB left	0.52	E	63.5	37
			NB left	0.71	E	60.0	54
			SB left	0.78	E	55.8	78
Total future	F	106	EB left	0.86	E	58.9	104
			WB left	0.54	E	66.6	37
			WB through	1.70	F	350	303
			WB right	0.92	D	46.6	138
			NB left	0.73	E	63.9	54
			NB through	0.80	D	54.5	93
Total future (mitigated)	E	67.8	EB left	0.95	F	83.8	138
			WB left	0.59	F	82.3	43
			WB through	1.17	F	130	283
			NB left	0.84	F	85.8	68
			NB through	0.89	E	74.0	117
			SB left	0.95	F	88.5	119

During the PM peak hour under future background conditions, the impact of diversion to Maley Drive is primarily anticipated to be experienced on the eastbound left turn (due to lower demand). The intersection level of service is expected to be unchanged at LOS D. Under total future conditions, the westbound through movement is still expected to exceed capacity, but the eastbound left turn is would operate within capacity (rather than 12% over capacity) due to diversion of traffic to Maley Drive.

Table 10: Pre-Game Peak Hour Intersection Operations, Kingsway at Falconbridge Road

Traffic Scenario	Overall		Critical movement(s)				
	LOS	Delay (s/veh)	Movement	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Future background	C	32.0	WB Left	0.43	D	54.9	30
Future background (mitigated)	C	32.2	WB left	0.43	E	55.7	31
Total future	E	79.7	EB left	0.79	D	54.3	84
			EB through	1.27	F	162	332
			WB left	0.47	E	63.3	32
			WB through	0.87	E	57.3	127
			NB left	0.63	E	57.9	44
Total future (mitigated)	E	69.4	SB left	1.03	F	86.8	162
			EB left	0.82	E	60.6	91
			EB through	1.14	F	109	331
			WB left	0.49	E	69.2	34
			NB left	0.65	E	63.7	47
Total future (mitigated)	E	69.4	NB through	0.75	E	55.7	80
			SB left	1.11	F	116	176

During the pre-game peak hour under future background conditions, the overall intersection delay and level of service are largely unchanged from prior analyses. Under total future conditions, the overall

intersection level of service is unchanged at LOS E, although the v/c ratios are marginally higher on the key movements approaching the subject site (eastbound through; southbound left turn) due to changes in the assumed levels of on-site trip interaction.

Summary of Updated Intersection Operations

The Kingsway intersections at Barry Downe Road and at Falconbridge Road are both expected to be constraints during the pre-game peak hour. The southbound left turn movements at both intersections are expected to be 11-12% over capacity, and the eastbound through movement at Falconbridge Road is expected to be 14% over capacity. These are reasonable conditions considering that they are associated with fully sold-out events that will only occur a few times per year.

The Kingsway intersections at Barry Downe Road and at Falconbridge Road are also both expected to be constraints during the typical weekday PM peak hour. The Maley Drive extension will reduce volumes on the eastbound left turn at both intersections and thereby increase capacity on the opposing westbound movements; however, the westbound approaches will continue to be over capacity under total future conditions. The westbound through and right turn movements at Barry Downe Road are both expected to be 9% over capacity, and the westbound through movement at Falconbridge Road is expected to be 17% over capacity. This would be a regular occurrence and would therefore be less acceptable than a similar deficiency associated with a few sold-out events per year at the arena.

2.4.3 Assessment of Supportable Level of Business Park Development

An assessment was made of the amount of development that would be able to proceed in the business park without exceeding capacity on the Kingsway at Barry Downe Road or at Falconbridge Road. The capacity deficiency was quantified on the three constraining movements (westbound through and right turn at Barry Downe Road; westbound through at Falconbridge Road). The capacity deficiency was then subtracted from the traffic demand associated with the business park to determine the proportion of business park traffic that can be accommodated. The calculations are outlined in *Table 11*.

Table 11: PM Peak Hour Intersection Capacity Constraints and Impact on Business Park Phasing

	Kingsway / Barry Downe		Kingsway / Falconbridge
	WB through	WB right	WB through
v/c ratio	1.09	1.09	1.17
Volume (vph)	1,095	745	1,210
Capacity (vph)	1,005	685	1,035
Over capacity (vph)	90	60	175
Business park demand	375	250	625
Available for business park	285	190	450
Supportable build-out	76%	76%	72%

The revised traffic projections, including the Maley Drive westerly extension, indicate that there would be sufficient capacity on the road network to accommodate the development of approximately 70% of the business park lands (approximately 65 acres). This is governed by the westbound through movement at Falconbridge Road. This calculation should be revisited as the business park builds out,

once the actual impact of the Maley Drive extension is known and once more details are available regarding the actual land uses proposed in the business park.

2.5 Kingsway Left Turn Lanes

At the two main points of access from the Kingsway (at Street "A" and at Street "C" / Levesque Street), there will be a substantial concentration of eastbound left turn demand prior to an event. The analyses considered intersection configurations with a single left turn lane and with dual left turn lanes on the eastbound Kingsway at both intersections.

Table 12 presents the v/c ratio, average delay, level of service and 95th percentile queue for the key opposing movements in each direction (eastbound left vs. westbound through; northbound left / southbound left) to illustrate the difference between the single and dual eastbound left turn lane configuration.

Table 12: Comparison of Intersection Operations, Single vs. Dual Eastbound Left Turn Lanes

		Intersection:		Kingsway at Street "A"				Kingsway at Street "C"			
		Peak hour:		PM peak		Pre-game peak		PM peak		Pre-game peak	
		# of EB left turn lanes:		1LT	2LT	1LT	2LT	1LT	2LT	1LT	2LT
Overall	Delay (s/veh)	22.2	26.4	20.3	19.3	17.0	17.5	31.6	28.8		
	LOS	C	C	C	B	B	B	C	C		
EB left	v/c	0.48	0.58	0.90	0.80	0.23	0.25	0.88	0.77		
	Delay (s/veh)	11.7	39.4	30.8	35.9	7.5	32.1	31.4	38.9		
	LOS	B	D	C	D	A	C	C	D		
	95 th %ile queue (m)	19	40	212	95	11	14	156	78		
WB through	v/c	0.88	0.90	0.59	0.50	0.55	0.56	0.69	0.61		
	Delay (s/veh)	36.0	39.0	34.7	25.5	15.9	17.6	36.9	29.3		
	LOS	D	D	C	C	B	B	D	C		
	95 th %ile queue (m)	149	159	83	71	72	79	91	84		
NB left	v/c	—	—	—	—	0.41	0.42	0.38	0.38		
	Delay (s/veh)	—	—	—	—	27.6	29.5	40.8	36.1		
	LOS	—	—	—	—	C	C	D	D		
	95 th %ile queue (m)	—	—	—	—	27	28	38	37		
SB left	v/c	0.73	0.76	0.65	0.58	0.56	0.57	0.51	0.37		
	Delay (s/veh)	34.8	38.2	53.0	43.1	32.4	34.5	64.1	43.7		
	LOS	C	D	D	D	C	C	E	D		
	95 th %ile queue (m)	93	99	57	50	34	36	23	18		

The dual left turn lanes result in a minor overall increase in delay during the PM peak hour when left turn volumes are lower and more easily accommodated in a single lane, and a minor overall decrease in delay during the pre-game peak hour when left turn volumes are higher and can be processed more efficiently in two lanes.

During the pre-game hour:

- The dual left turn lanes result in increased capacity and shorter queues on the eastbound left turn movements, but also slightly longer delays because the left turn phase would "gap out" sooner than a single left turn lane, and because the left turn phase would need to be fully

- protected and therefore left-turning vehicles would not be able to make use of gaps in oncoming traffic during the westbound phase.
- The dual left turn lanes result in increased capacity and shorter delays on other intersection movements. With the left turn phase “gapping out” earlier, other movements would receive a green signal sooner and would experience shorter delays.

During the PM peak hour (and other times when eastbound left turn demand is lower), the same capacity benefits are not experienced on the left turn movement, and the increase in delay (due to fully protected left turn phasing) would be more substantial.

There are three other considerations that were not reflected in the scope of analyses:

- AM peak hour business park traffic;
- Potential south leg at Street “A”; and
- Variability in pre-game arrival flows.

The analyses focused on peak conditions for the site overall. The AM peak hour may generate less traffic due to lower activity levels at the casino and arena, but would still experience high eastbound left turn demand once the business park is fully built out. Using the same parameters and assumptions as the PM peak hour analyses, it is estimated that the business park on its own could generate approximately 650 eastbound left turns at Street “A”; this volume is lower than the pre-game demand, but this would be offset by higher opposing westbound traffic. This indicates that the need to accommodate high volumes of left-turning traffic would eventually become a daily occurrence, not limited to infrequent events at the arena.

Also in the longer term, there is the potential to construct a south leg at the Kingsway and Street “A” to serve future residential development. If this link materializes, it would result in increased competition for green time at the intersection, particularly during the AM peak hour (i.e., outbound residential traffic on the northbound left turn would be competing for capacity with inbound business park traffic on the eastbound left turn and general commuting traffic on the westbound approach).

Consideration was given to the potential effect of variability in arrivals on the eastbound left turn before a game or event. The analyses assumed relatively even distribution of left turn demand throughout the peak hour. It is possible that the arrival rate may be more variable within the hour (e.g., increasing closer to the start of the event).

- In the single left turn lane scenario, the left turn capacity at Street “A” is fixed at 220 vehicles during the peak 15-minute interval.
- In the dual left turn lane scenario, the left turn capacity shown in *Table 12* is based on the left turn phase “gapping out” where possible, and the actual left turn capacity could be higher (up to 280 vehicles during the peak 15-minute interval) if the left turn phase consistently reaches its maximum length.

In summary, the dual left turn lane configuration is better able to process site traffic, and with less impact on other background traffic, during high-volume periods when the additional left turn capacity is needed, although it would require a fully protected left turn phase that would result in higher delays for the left turn movement at other times when the lower volumes do not warrant the additional capacity of a dual left turn lane.

In the short term, the high-volume periods will be relatively infrequent (associated with events at the arena, particularly the subset of events with higher attendance). In the longer term, development in the business park would be expected to also generate high left turn volumes on a regular basis, and would potentially also be competing for intersection capacity with residential traffic entering from the south. As such, a potential form of mitigation could be to widen the Kingsway to accommodate a future dual left turn lane, but operate the intersection with a single left turn lane. This would allow for the following:

- It would avoid having to widen the Kingsway twice at Street "A" (once to construct a single left turn lane; a second time to construct the second left turn lane, when required). The conversion could be achieved relatively quickly and at lower cost.
- In the interim, the "hatched-out", unused second left turn lane could be used as a queue jump lane by Sudbury Transit on event nights, to allow buses to access the site more quickly and give them a travel time advantage over general traffic.

The need for the dual left turn lanes is expected to be greatest at Street "A". The projected peak hour left turn volumes are highest at Street "A", and this would also likely be the case during the AM peak hour since a greater proportion of the business park is accessed via Street "A" than via Street "C". Conversely, there are more potential property constraints at Street "C" due to existing development on the south side of the Kingsway. Recognizing that there are benefits and drawbacks to both single and dual left turn lane configurations, a possible solution would be to provide eastbound dual left turn lanes at Street "A", but to continue to serve eastbound left turns at Street "C" in a single lane.

2.6 Proposed On-Site Bus Loop

The site plan includes a pick-up and drop-off loop in front of Festival Square, between the main entrances to the casino and the arena. It will operate with one-way traffic traveling in a counter-clockwise direction (i.e., traffic will enter at the south leg of the loop, and will exit at the north leg of the loop). The pick-up and drop-off loop will be reserved for use by buses before and after events at the arena.

Traffic signals are proposed at the exit from the bus loop to enable buses to enter Street "A." The traffic signals will also facilitate pedestrian crossings to the overflow parking (as discussed in *Section 2.3*). The traffic signals will be configured so that a bus receives a green signal as soon as practicable after arriving at Street "A," providing a break in traffic on Street "A" to allow the bus to exit the loop. Once the bus has turned onto Street "A," the time for the bus to reach the Kingsway is estimated at approximately 3 to 4 minutes (or less, depending on the length of the southbound queue on Street "A"). A memo prepared in February 2018 provides further detail on how the post-event travel time on Street "A" was determined. The anticipated operations and timing parameters of this signal will be explored in more detail as part of the site plan application stage.

Pedestrian activity across the bus loop roadway is expected to be low. Pedestrians traveling to the overflow parking area north of Street "A" will use the walkway along the east side of the bus loop, leading to the proposed signalized crossing, and will not need to cross the bus loop roadway. Pedestrian crossing demand to the west side of the bus loop will be low, because the parking area to the west is planned to be reserved for casino visitors. There will be some pedestrian crossing demand to the small parking lot within the interior of the bus loop (approximately 75 spaces). Pedestrian crossing

requirements between the arena and this small parking lot will be explored in more detail as part of the site plan application stage.

2.7 Active Transportation

The City of Greater Sudbury's Transportation Master Plan has not identified any active transportation infrastructure plans within close proximity of this site. As noted in the TIS, the Street 'C' cross-section should include an allowance for cycling infrastructure. This would enable the site to be connected to the Kingsway. Consideration should also be given to extending this cycling infrastructure farther south on Levesque Street to connect with the bicycle lanes on Bancroft Drive (approximately 750 metres to the south). The actual cycling infrastructure on Street 'C' (and even Street 'A') can be determined as the design of those streets progresses.

2.8 Transportation Demand Management (TDM) Measures

The TIS identified the following TDM measures, primarily related to games and special events at the arena:

- Provision of shuttle service by Sudbury Transit, connecting to other routes at the downtown and/or New Sudbury terminals;
- Allowing event ticket-holders to travel to and from the event via Sudbury Transit for free or for a reduced fare;
- Provision of on-site infrastructure to prioritize shuttle buses over general traffic (e.g., use of pick-up / drop-off loop by buses only during arena events; signalized egress from bus loop);
- Encouraging higher vehicle occupancy by designating the small parking area within the drop-off loop (i.e., close to the main entrance) as preferential spaces for vehicles carrying more than a specified number of spectators (e.g., a "four-plus" lot); and
- Exploring other promotional measures to increase the size of groups attending games and other events (e.g., measures to encourage sales to larger groups).

The shuttle service and on-site transit measures would not necessarily increase the non-auto modal split above the 5% assumed in the analyses (although this may be possible depending on the attractiveness of the service and the availability of connecting services within the city); rather, they are measures that would be necessary to support the assumed 5% modal split, given the relative lack of transit service in the area and the number of riders that would need to be accommodated.

From discussions with Sudbury Transit, it is understood that vehicles and operators would be available to operate a shuttle service, but that funding would need to be identified. Possible funding mechanisms may include a combination of:

- Farebox revenue (if shuttles operate under a regular transit fare);
- Increased municipal subsidy; and/or
- Subsidy from event operators / organizers (e.g., revenue raised as part of the cost of an event ticket).

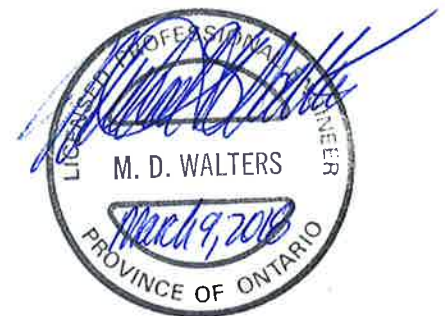
Funding sources, route structure and service levels are interrelated and will need to be confirmed prior to opening of the arena.

The “plus-four” lot would not necessarily change the vehicle occupancy level, since the vehicle occupancy surveys observed approximately 13% of vehicles with 4 or more occupants, and the number of those vehicles at a sold-out event would exceed the capacity of the lot. Rather, it would reinforce the existing vehicle occupancy and would be a promotional tool to keep ridesharing top-of-mind.

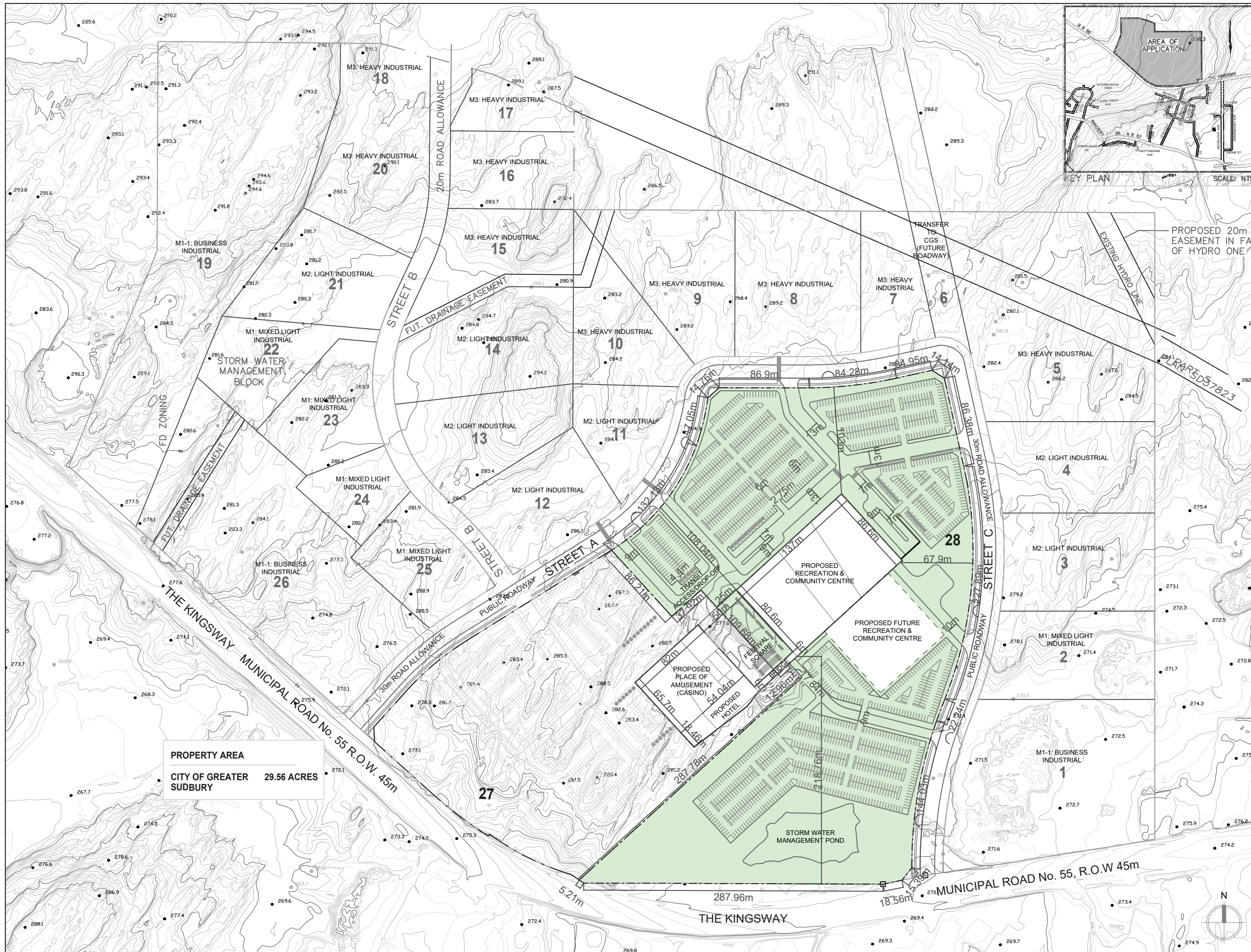
Group sales could result in a modest reduction in vehicle trips and parking requirements, depending on the size and number of groups at each game and assuming that groups arrive in one vehicle (or bus) rather than in separate vehicles. Group sales would not necessarily result in increased costs (depending on the types of incentives provided by the event organizers); to the extent that group sales are used as a tool to increase attendance, they would be a revenue generator.

The TDM measures outlined above focus on large events at the arena, rather than the other uses on the site, because of the large amount of traffic and parking demand generated by such events and the relative infrequency of those events (i.e., to reduce the need to provide permanent infrastructure for an event that is an infrequent occurrence). From prior experience, TDM measures at the casino are typically limited to measures to encourage attendance by larger groups (e.g., tour buses); however, these measures would have been built into the trip generation survey data collected at the Point Edward site that was used in developing trip forecasts for the Sudbury site.

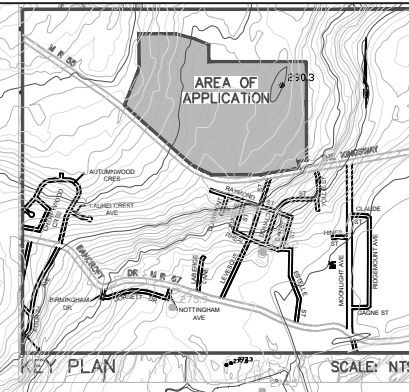
At full build-out, the business park is anticipated to become a large trip generator as well, although the timing for this requirement will depend on the pace of development in the business park. Business park travel will be a daily occurrence more suited to a regular Sudbury Transit route operating along Street “A” and/or Street “C”, likely traveling to/from one of the main terminals. Sudbury Transit is currently undertaking a service review that will likely identify modifications to the existing route network and/or schedules, and service to the subject site would be identified as part of this review. As a regular transit route, operating costs would be covered by a combination of fare revenue and municipal subsidy. A traffic reduction was not specifically applied to the business park trips in the TIS analysis. The transit modal split for trips to work made by residents in the eastern part of the city is in the order of 5%. If a 5% reduction from the trip generation forecasts can be achieved, this would be equivalent to 75 peak direction vehicle trips at full build-out. The actual usage of transit for trips to the business park will depend on the convenience of the route, the schedule, and connections with other routes.



Attachment 1:
Proposed Site Plan



PROPERTY AREA
CITY OF GREATER SUDBURY 29.56 ACRES
 SUDBURY



CLIENT:
 200 Rue Brady Street
 Sudbury, Ontario
 P3A 5P3
 PO Box 5000 / CP 5000
 www.greatersudbury.ca

ARCHITECT:
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 416-539-0763
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SEAL:
 ONTARIO ASSOCIATION
 OF ARCHITECTS
 JOSEPH SEARS M.A. AIA
 LICENCE 6085

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





















No.	Description	Date
1	ZONING BY-LAW AMENDMENT	15/11/2017

PROJECT:
SUDBURY, ONTARIO
 TITLE:
CONCEPTUAL KINGSWAY INTEGRATED SITE PLAN-PHASE 2
 Scale: 1:3500
 PROJECT NO.: 17056 DRAWING NO.:
A120
 CHECKED:

Attachment 2:
Synchro Analysis Worksheets

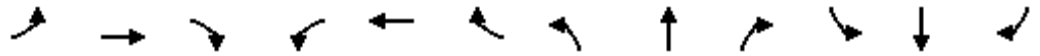
Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	455	270	290	520	140	280	305	290	180	470	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.968				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3409	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3409	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			278		28				299		25	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	175	469	278	299	536	144	289	314	299	186	485	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	469	278	299	680	0	289	314	299	186	614	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	37.0	37.0	28.0	40.0	0.0	25.0	30.0	30.0	25.0	30.0	0.0
Total Split (%)	20.8%	30.8%	30.8%	23.3%	33.3%	0.0%	20.8%	25.0%	25.0%	20.8%	25.0%	0.0%
Maximum Green (s)	20.0	31.3	31.3	23.0	34.3		20.0	24.3	24.3	20.0	24.3	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
 Future background volumes (with Maley Drive)

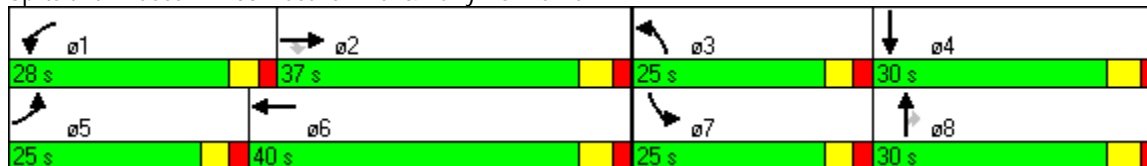


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	16.0	32.5	32.5	22.1	38.6		20.0	27.3	27.3	16.6	23.9	
Actuated g/C Ratio	0.13	0.27	0.27	0.18	0.32		0.17	0.23	0.23	0.14	0.20	
v/c Ratio	0.74	0.49	0.44	0.91	0.62		0.97	0.39	0.51	0.76	0.88	
Control Delay	68.1	39.3	6.4	78.9	36.7		95.2	41.6	7.9	69.1	59.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	68.1	39.3	6.4	78.9	36.7		95.2	41.6	7.9	69.1	59.4	
LOS	E	D	A	E	D		F	D	A	E	E	
Approach Delay		34.9			49.6			47.6			61.6	
Approach LOS		C			D			D			E	
Queue Length 50th (m)	42.1	53.1	0.0	72.6	73.8		72.0	34.5	0.0	44.7	74.0	
Queue Length 95th (m)	65.2	69.6	21.1	#123.2	98.0		#128.5	50.9	24.6	68.9	#105.4	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	295	968	632	343	1103		298	807	588	295	719	
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	0.59	0.48	0.44	0.87	0.62		0.97	0.39	0.51	0.63	0.85	

Intersection Summary
























Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 48.0 Intersection LOS: D
 Intersection Capacity Utilization 92.8% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



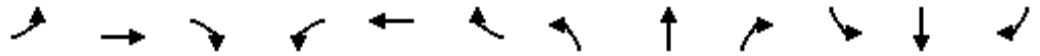
Lanes, Volumes, Timings
105: Lasalle Blvd. & Falconbridge Rd.

Weekday PM peak hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	75	275	125	155	65	325	790	65	15	465	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	40.0		0.0	55.0		0.0	40.0		30.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	15.0		7.5	40.0		7.5	70.0		7.5	20.0		30.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Fr _t			0.850		0.956			0.989				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1881	1509	1719	1776	0	1736	3500	0	1444	3505	1568
Fl _t Permitted	0.391			0.707			0.314			0.323		
Satd. Flow (perm)	728	1881	1509	1279	1776	0	574	3500	0	491	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284		16			11				154
Link Speed (k/h)		50			50			50				50
Link Distance (m)		226.4			295.5			253.8				227.6
Travel Time (s)		16.3			21.3			18.3				16.4
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	1%	7%	5%	2%	3%	4%	2%	2%	25%	3%	3%
Adj. Flow (vph)	258	77	284	129	160	67	335	814	67	15	479	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	77	284	129	227	0	335	881	0	15	479	180
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		pm+pt				Perm		Perm
Protected Phases	7	4		3	8		5	2				6
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4		3	8		5	2		6		6
Switch Phase	8											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		7.0	20.0		20.0	20.0	20.0
Minimum Split (s)	11.0	35.4	35.4	11.0	38.4		11.0	33.8		33.8	33.8	33.8
Total Split (s)	22.0	28.4	28.4	16.0	28.4	0.0	22.0	46.8	0.0	46.8	46.8	46.8
Total Split (%)	18.5%	23.8%	23.8%	13.4%	23.8%	0.0%	18.5%	39.3%	0.0%	39.3%	39.3%	39.3%
Maximum Green (s)	18.0	22.0	22.0	12.0	22.0		18.0	40.0		40.0	40.0	40.0
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	4.2		4.2	4.2	4.2
All-Red Time (s)	1.0	2.7	2.7	1.0	2.7		1.0	2.6		2.6	2.6	2.6
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)	4.0	6.4	6.4	4.0	6.4	4.0	4.0	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.5	3.5	2.5	3.5		2.5	4.5		4.5	4.5	4.5
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)		7.0	7.0		7.0			7.0		7.0	7.0	7.0

Lanes, Volumes, Timings
 105: Lasalle Blvd. & Falconbridge Rd.

Weekday PM peak hour
 Future background volumes (with Maley Drive)

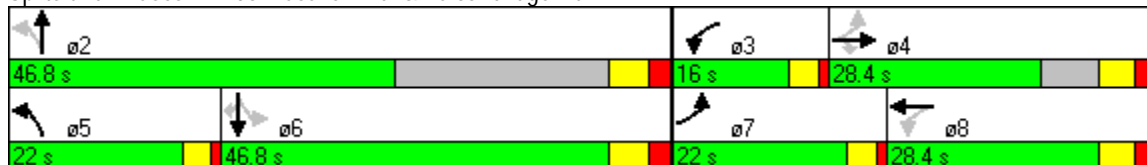


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		25.0			20.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effct Green (s)	40.9	27.5	27.5	30.4	18.7		46.4	43.6		22.7	22.7	22.7
Actuated g/C Ratio	0.43	0.29	0.29	0.31	0.20		0.49	0.46		0.24	0.24	0.24
v/c Ratio	0.53	0.14	0.45	0.29	0.63		0.69	0.55		0.13	0.57	0.37
Control Delay	23.3	29.6	6.3	20.4	42.5		24.2	20.2		33.2	35.6	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.3	29.6	6.3	20.4	42.5		24.2	20.2		33.2	35.6	9.8
LOS	C	C	A	C	D		C	C		C	D	A
Approach Delay		16.3			34.5			21.3			28.7	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	32.3	11.4	0.0	14.9	38.3		39.0	61.1		2.3	43.5	3.9
Queue Length 95th (m)	57.9	25.7	20.9	30.2	69.3		67.0	88.4		8.5	64.2	21.6
Internal Link Dist (m)		202.4			271.5			229.8			203.6	
Turn Bay Length (m)	90.0			40.0			55.0			40.0		30.0
Base Capacity (vph)	498	582	637	475	410		494	1915		175	1248	657
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	0.52	0.13	0.45	0.27	0.55		0.68	0.46		0.09	0.38	0.27

Intersection Summary

























Area Type: Other
 Cycle Length: 119.2
 Actuated Cycle Length: 95.4
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 23.6
 Intersection LOS: C
 Intersection Capacity Utilization 86.5%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 105: Lasalle Blvd. & Falconbridge Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	665	880	90	135	630	445	110	340	155	495	360	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			95			291						521
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		549.9			473.7			387.7			377.3	
Travel Time (s)		39.6			34.1			27.9			27.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	700	926	95	142	663	468	116	358	163	521	379	521
Shared Lane Traffic (%)												
Lane Group Flow (vph)	700	926	95	142	663	468	116	358	163	521	379	521
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2		7.2		7.2
Link Offset(m)		0.0			0.0			0.0		0.0		0.0
Crosswalk Width(m)		4.8			4.8			4.8		4.8		4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	34.1	10.4	34.1	
Total Split (s)	44.4	48.4	48.4	19.4	46.4	46.4	22.4	26.1	26.1	22.4	26.1	0.0
Total Split (%)	31.9%	34.7%	34.7%	13.9%	33.3%	33.3%	16.1%	18.7%	18.7%	16.1%	18.7%	0.0%
Maximum Green (s)	39.0	42.0	42.0	14.0	40.0	40.0	17.0	20.0	20.0	17.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	6.1	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	2.5	3.5	3.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

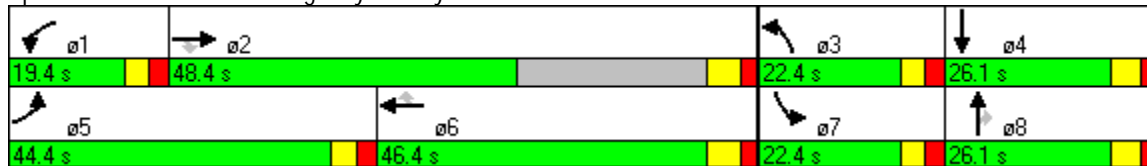
Weekday PM peak hour
Future background volumes (with Maley Drive)

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0	21.0		21.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	29.0	47.1	47.1	12.8	31.0	31.0	9.0	17.2	17.2	17.3	25.5	118.2
Actuated g/C Ratio	0.25	0.40	0.40	0.11	0.26	0.26	0.08	0.15	0.15	0.15	0.22	1.00
v/c Ratio	0.82	0.66	0.14	0.73	0.72	0.74	0.43	0.70	0.69	1.03	0.49	0.33
Control Delay	51.9	31.1	4.6	75.8	45.3	23.0	60.5	57.6	66.8	97.0	45.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	31.1	4.6	75.8	45.3	23.0	60.5	57.6	66.8	97.0	45.7	0.5
LOS	D	C	A	E	D	C	E	E	E	F	D	A
Approach Delay		38.1			40.5			60.5			47.9	
Approach LOS		D			D			E			D	
Queue Length 50th (m)	84.3	97.7	0.0	34.0	78.2	40.2	14.3	44.1	38.2	~72.1	43.0	0.0
Queue Length 95th (m)	117.7	121.3	10.1	#77.1	111.3	90.2	27.1	70.7	#76.4	#133.1	71.7	0.0
Internal Link Dist (m)		525.9			449.7			363.7			353.3	
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	1063	1701	701	213	1111	630	478	592	270	508	771	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.54	0.14	0.67	0.60	0.74	0.24	0.60	0.60	1.03	0.49	0.33

Intersection Summary































Area Type: Other
 Cycle Length: 139.3
 Actuated Cycle Length: 118.2
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 44.3 Intersection LOS: D
 Intersection Capacity Utilization 79.3% ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Weekday PM peak hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (vph)	615	670	320	80	445	320	280	460	90	450	460	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			318			292		17				474
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	3%	2%	1%	5%	5%	2%	1%	2%	5%	2%	2%
Adj. Flow (vph)	628	684	327	82	454	327	286	469	92	459	469	474
Shared Lane Traffic (%)												
Lane Group Flow (vph)	628	684	327	82	454	327	286	561	0	459	469	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	30.0	40.7	40.7	20.0	35.7	35.7	20.0	35.7	0.0	25.0	35.7	0.0
Total Split (%)	23.7%	32.2%	32.2%	15.8%	28.2%	28.2%	15.8%	28.2%	0.0%	19.8%	28.2%	0.0%
Maximum Green (s)	25.0	34.0	34.0	15.0	29.0	29.0	15.0	29.0		20.0	29.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

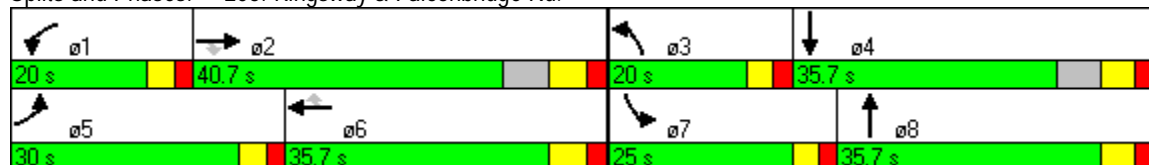
Weekday PM peak hour
Future background volumes (with Maley Drive)

	↖	→	↘	↙	←	↖	↙	↑	↘	↙	↓	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		18.0	18.0		20.0			19.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	23.6	39.6	39.6	10.2	23.5	23.5	13.2	23.3		18.7	28.7	112.7
Actuated g/C Ratio	0.21	0.35	0.35	0.09	0.21	0.21	0.12	0.21		0.17	0.25	1.00
v/c Ratio	0.87	0.56	0.43	0.52	0.63	0.59	0.71	0.77		0.83	0.52	0.30
Control Delay	57.5	33.9	5.8	63.0	46.0	11.9	59.7	49.1		60.4	39.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	57.5	33.9	5.8	63.0	46.0	11.9	59.7	49.1		60.4	39.0	0.5
LOS	E	C	A	E	D	B	E	D		E	D	A
Approach Delay		37.3			34.7			52.7			33.0	
Approach LOS		D			C			D			C	
Queue Length 50th (m)	73.8	70.8	1.4	18.9	52.6	6.9	33.8	64.6		54.2	50.4	0.0
Queue Length 95th (m)	#117.8	102.2	23.8	37.0	74.1	35.8	53.2	89.8		#89.2	71.9	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	765	1253	762	225	849	552	453	869		589	1025	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.82	0.55	0.43	0.36	0.53	0.59	0.63	0.65		0.78	0.46	0.30

Intersection Summary

Area Type: Other
 Cycle Length: 126.4
 Actuated Cycle Length: 112.7
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 38.3 Intersection LOS: D
 Intersection Capacity Utilization 82.1% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

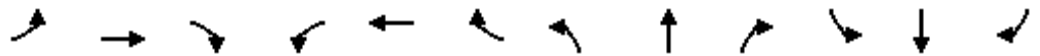
Weekday PM peak hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1050	75	25	745	0	40	0	30	5	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	3.0	3.6	3.0	3.0
Storage Length (m)	100.0		90.0	30.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (m)	100.0		75.0	40.0		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			0.850
Flt Protected	0.950			0.950				0.950				0.976
Satd. Flow (prot)	1504	3539	1615	1805	3505	0	0	1685	1507	0	1731	1507
Flt Permitted	0.950			0.950				0.751			0.848	
Satd. Flow (perm)	1504	3539	1615	1805	3505	0	0	1332	1507	0	1504	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81						32			11
Link Speed (k/h)		60			80			50				50
Link Distance (m)		974.0			667.8			260.4				172.8
Travel Time (s)		58.4			30.1			18.7				12.4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	2%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	1129	81	27	801	0	43	0	32	5	5	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1129	81	27	801	0	0	43	32	0	10	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2				8		8	4		4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	10.0	37.1	37.1	10.0	37.1		33.5	33.5	33.5	33.5	33.5	33.5
Total Split (s)	15.0	57.1	57.1	17.0	57.1	0.0	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	15.1%	57.3%	57.3%	17.1%	57.3%	0.0%	25.6%	25.6%	25.6%	25.6%	25.6%	25.6%
Maximum Green (s)	10.0	50.0	50.0	12.0	50.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	5.1	5.1	3.0	5.1		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.2	2.2	2.2	2.2	2.2	2.2
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)	5.0	7.1	7.1	5.0	7.1	4.0	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0		3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None

Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Weekday PM peak hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		15.0	15.0		15.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	0
Act Effect Green (s)	6.2	56.4	56.4	7.2	59.3			9.9	9.9		9.9	9.9
Actuated g/C Ratio	0.07	0.69	0.69	0.08	0.72			0.12	0.12		0.12	0.12
v/c Ratio	0.05	0.46	0.07	0.18	0.32			0.28	0.16		0.06	0.06
Control Delay	38.2	8.5	2.3	36.5	5.7			34.6	14.4		31.4	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	38.2	8.5	2.3	36.5	5.7			34.6	14.4		31.4	18.4
LOS	D	A	A	D	A			C	B		C	B
Approach Delay		8.2			6.7			26.0			24.6	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	0.5	28.3	0.0	2.5	17.7			3.9	0.0		0.9	0.0
Queue Length 95th (m)	4.4	80.4	5.8	12.6	48.7			17.0	8.1		6.3	4.8
Internal Link Dist (m)		950.0			643.8			236.4			148.8	
Turn Bay Length (m)	100.0		90.0	30.0								
Base Capacity (vph)	167	2529	1177	243	2624			299	363		338	347
Starvation Cap Reductn	0	0	0	0	0			0	0		0	0
Spillback Cap Reductn	0	0	0	0	0			0	0		0	0
Storage Cap Reductn	0	0	0	0	0			0	0		0	0
Reduced v/c Ratio	0.03	0.45	0.07	0.11	0.31			0.14	0.09		0.03	0.03

Intersection Summary























Area Type:	Other
Cycle Length:	99.6
Actuated Cycle Length:	81.9
Natural Cycle:	85
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization:	57.4%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 210: Kingsway & 3rd Ave.



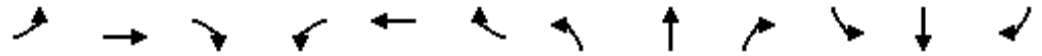
Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Weekday PM peak hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	880	205	80	665	0	80	0	125	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		0.1	20.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	60.0		65.0	95.0		35.0	20.0		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.850				
Flt Protected				0.950			0.950					
Satd. Flow (prot)	1900	3539	1583	1736	3438	0	1805	1568	0	1900	1900	0
Flt Permitted				0.246			0.757					
Satd. Flow (perm)	1900	3539	1583	449	3438	0	1438	1568	0	1900	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218					197				
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	0	936	218	85	707	0	85	0	133	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	936	218	85	707	0	85	133	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm		Perm	pm+pt			Perm			Perm		
Protected Phases		2		1	6			8				4
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	5.0	30.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	37.9	37.9	37.9	9.0	37.9		27.8	27.8		27.8	27.8	
Total Split (s)	37.9	37.9	37.9	9.0	37.9	0.0	27.8	27.8	0.0	27.8	27.8	0.0
Total Split (%)	50.7%	50.7%	50.7%	12.0%	50.7%	0.0%	37.2%	37.2%	0.0%	37.2%	37.2%	0.0%
Maximum Green (s)	30.0	30.0	30.0	5.0	30.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	5.9	5.9	5.9	3.0	5.9		3.6	3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0		3.2	3.2		3.2	3.2	
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)	7.9	7.9	7.9	4.0	7.9	4.0	6.8	6.8	4.0	6.8	6.8	4.0
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0	5.0	2.5	5.0		3.5	3.5		3.5	3.5	
Recall Mode	Min	Min	Min	None	Min		None	None		None	None	

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Weekday PM peak hour
Future background volumes (with Maley Drive)

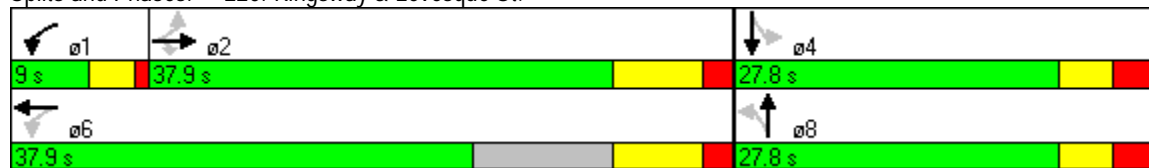


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	16.0	16.0	16.0		16.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0	0		0		0	0		0	0	
Act Effect Green (s)		38.3	38.3	48.2	45.7		10.2	10.2				
Actuated g/C Ratio		0.58	0.58	0.70	0.69		0.15	0.15				
v/c Ratio		0.46	0.22	0.21	0.30		0.40	0.33				
Control Delay		12.0	2.4	5.2	6.0		29.8	3.7				
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0				
Total Delay		12.0	2.4	5.2	6.0		29.8	3.7				
LOS		B	A	A	A		C	A				
Approach Delay		10.2			6.0			13.9				
Approach LOS		B			A			B				
Queue Length 50th (m)		40.5	0.0	2.8	19.0		9.6	0.0				
Queue Length 95th (m)		63.8	10.4	7.9	32.6		21.3	5.3				
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)			90.0	30.0			20.0					
Base Capacity (vph)		2033	1002	412	2361		381	560				
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		0.46	0.22	0.21	0.30		0.22	0.24				

Intersection Summary

Area Type:	Other
Cycle Length:	74.7
Actuated Cycle Length:	66.6
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization:	76.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 220: Kingsway & Levesque St.



Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

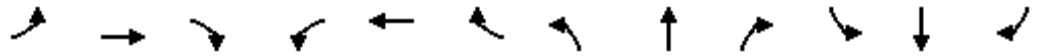
Weekday PM peak hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	985	70	25	790	10	40	5	30	10	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		20.0	50.0		75.0	20.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	100.0		40.0	100.0		95.0	30.0		7.5	15.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850		0.870				0.870
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3471	1583	1736	3438	1615	1805	1653	0	1530	1521	0
Fl _t Permitted	0.950			0.950			0.732			0.732		
Satd. Flow (perm)	1687	3471	1583	1736	3438	1615	1391	1653	0	1179	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			29			11			33			33
Link Speed (k/h)		80			80			50				50
Link Distance (m)		457.8			1178.3			983.3				168.8
Travel Time (s)		20.6			53.0			70.8				12.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	4%	2%	4%	5%	0%	0%	0%	0%	18%	0%	10%
Adj. Flow (vph)	16	1082	77	27	868	11	44	5	33	11	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1082	77	27	868	11	44	38	0	11	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4		4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	37.9	37.9	10.0	37.9	37.9	30.7	30.7		30.7	30.7	
Total Split (s)	23.0	67.9	67.9	20.0	67.9	67.9	31.7	31.7	0.0	31.7	31.7	0.0
Total Split (%)	18.8%	55.4%	55.4%	16.3%	55.4%	55.4%	25.9%	25.9%	0.0%	25.9%	25.9%	0.0%
Maximum Green (s)	18.0	60.0	60.0	15.0	60.0	60.0	25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	4.1	4.1		4.1	4.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6		2.6	2.6	
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)	5.0	7.9	7.9	5.0	7.9	7.9	6.7	6.7	4.0	6.7	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	4.0	4.0		4.0	4.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	

Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Weekday PM peak hour
Future background volumes (with Maley Drive)

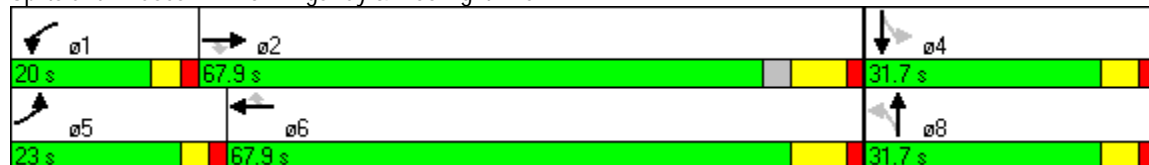


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	17.0	17.0		17.0	17.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	7.1	54.4	54.4	7.6	57.1	57.1	10.6	10.6		10.6	10.6	
Actuated g/C Ratio	0.08	0.72	0.72	0.09	0.76	0.76	0.13	0.13		0.13	0.13	
v/c Ratio	0.11	0.43	0.07	0.17	0.33	0.01	0.24	0.16		0.07	0.17	
Control Delay	37.5	9.1	6.1	35.2	6.4	4.2	32.4	15.2		30.6	15.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	37.5	9.1	6.1	35.2	6.4	4.2	32.4	15.2		30.6	15.5	
LOS	D	A	A	D	A	A	C	B		C	B	
Approach Delay		9.3			7.3			24.4			18.9	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	1.6	31.9	1.9	2.6	23.6	0.0	4.1	0.5		1.0	0.5	
Queue Length 95th (m)	8.9	84.2	10.5	12.6	61.5	2.3	17.2	9.6		6.6	9.6	
Internal Link Dist (m)		433.8			1154.3			959.3			144.8	
Turn Bay Length (m)	30.0		20.0	50.0		75.0	20.0			20.0		
Base Capacity (vph)	344	2750	1260	315	2768	1302	389	487		330	450	
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	0.05	0.39	0.06	0.09	0.31	0.01	0.11	0.08		0.03	0.08	

Intersection Summary

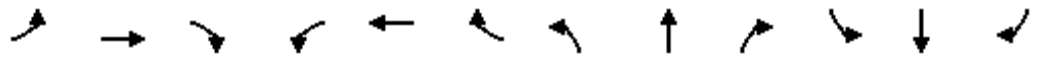
Area Type:	Other
Cycle Length:	122.6
Actuated Cycle Length:	75.3
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization:	52.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 225: Kingsway & Moonlight Ave.



Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	480	355	85	15	205	160	30	70	15	200	90	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95	0.98	0.99			0.99			0.99	0.94
Frt			0.850		0.934			0.983				0.850
Flt Protected	0.950			0.950				0.987			0.967	
Satd. Flow (prot)	1787	1881	1615	1805	1726	0	0	1833	0	0	1800	1583
Flt Permitted	0.298			0.543				0.812			0.599	
Satd. Flow (perm)	559	1881	1539	1014	1726	0	0	1498	0	0	1103	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88		44			6				206
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	0%	0%	2%	1%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	495	366	88	15	211	165	31	72	15	206	93	330
Shared Lane Traffic (%)												
Lane Group Flow (vph)	495	366	88	15	376	0	0	118	0	0	299	330
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	16.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	16.0	25.7	25.7
Total Split (%)	15.5%	44.2%	44.2%	44.2%	44.2%	0.0%	24.9%	24.9%	0.0%	15.5%	24.9%	24.9%
Maximum Green (s)	12.0	40.0	40.0	40.0	40.0		20.0	20.0		12.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

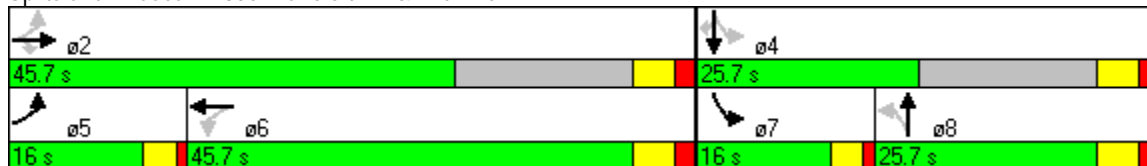
Weekday PM peak hour
Future background volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effct Green (s)	42.4	40.7	40.7	24.4	24.4			11.8			25.7	25.7
Actuated g/C Ratio	0.54	0.52	0.52	0.31	0.31			0.15			0.33	0.33
v/c Ratio	1.00	0.37	0.10	0.05	0.66			0.53			0.64	0.52
Control Delay	58.2	13.4	3.0	20.5	27.5			39.7			28.8	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	58.2	13.4	3.0	20.5	27.5			39.7			28.8	11.5
LOS	E	B	A	C	C			D			C	B
Approach Delay		35.8			27.2			39.7			19.8	
Approach LOS		D			C			D			B	
Queue Length 50th (m)	-50.2	33.2	0.0	1.7	45.3			15.9			34.5	13.0
Queue Length 95th (m)	#137.8	59.5	7.0	6.3	81.1			36.5			69.0	41.9
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	497	1132	961	436	767			343			665	734
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	1.00	0.32	0.09	0.03	0.49			0.34			0.45	0.45

Intersection Summary

Area Type: Other
 Cycle Length: 103.4
 Actuated Cycle Length: 78
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 29.6
 Intersection LOS: C
 Intersection Capacity Utilization 82.8%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

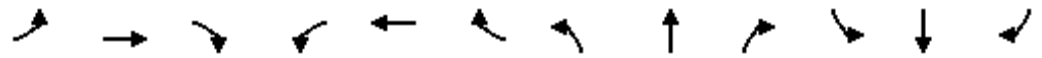
Splits and Phases: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour

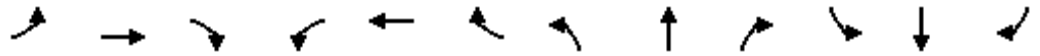
Future background volumes; signal adjustments (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	455	270	290	520	140	280	305	290	180	470	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.968				0.850		0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3409	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3409	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			278		28				299		25	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	175	469	278	299	536	144	289	314	299	186	485	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	469	278	299	680	0	289	314	299	186	614	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	37.0	37.0	28.0	40.0	0.0	25.0	30.0	30.0	25.0	30.0	0.0
Total Split (%)	20.8%	30.8%	30.8%	23.3%	33.3%	0.0%	20.8%	25.0%	25.0%	20.8%	25.0%	0.0%
Maximum Green (s)	20.0	31.3	31.3	23.0	34.3		20.0	24.3	24.3	20.0	24.3	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
 Future background volumes; signal adjustments (with Maley Drive)

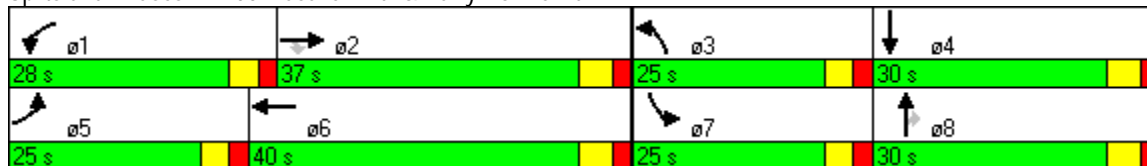


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effct Green (s)	16.0	32.5	32.5	22.1	38.6		20.0	27.3	27.3	16.6	23.9	
Actuated g/C Ratio	0.13	0.27	0.27	0.18	0.32		0.17	0.23	0.23	0.14	0.20	
v/c Ratio	0.74	0.49	0.44	0.91	0.62		0.97	0.39	0.51	0.76	0.88	
Control Delay	68.1	39.3	6.4	78.9	36.7		95.2	41.6	7.9	69.1	59.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	68.1	39.3	6.4	78.9	36.7		95.2	41.6	7.9	69.1	59.4	
LOS	E	D	A	E	D		F	D	A	E	E	
Approach Delay		34.9			49.6			47.6			61.6	
Approach LOS		C			D			D			E	
Queue Length 50th (m)	42.1	53.1	0.0	72.6	73.8		72.0	34.5	0.0	44.7	74.0	
Queue Length 95th (m)	65.2	69.6	21.1	#123.2	98.0		#128.5	50.9	24.6	68.9	#105.4	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	295	968	632	343	1103		298	807	588	295	719	
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	0.59	0.48	0.44	0.87	0.62		0.97	0.39	0.51	0.63	0.85	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 48.0 Intersection LOS: D
 Intersection Capacity Utilization 92.8% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
































Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour

Future background volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (vph)	665	860	90	135	630	445	110	340	155	495	360	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			95			305						521
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		549.9			473.7			387.7			377.3	
Travel Time (s)		39.6			34.1			27.9			27.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	700	905	95	142	663	468	116	358	163	521	379	521
Shared Lane Traffic (%)												
Lane Group Flow (vph)	700	905	95	142	663	468	116	358	163	521	379	521
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	39.4	46.4	46.4	29.4	46.4	46.4	22.4	26.1	29.4	25.4	26.1	0.0
Total Split (%)	28.7%	33.8%	33.8%	21.4%	33.8%	33.8%	16.3%	19.0%	21.4%	18.5%	19.0%	0.0%
Maximum Green (s)	34.0	40.0	40.0	24.0	40.0	40.0	17.0	20.0	24.0	20.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour
Future background volumes; signal adjustments (with Maley Drive)

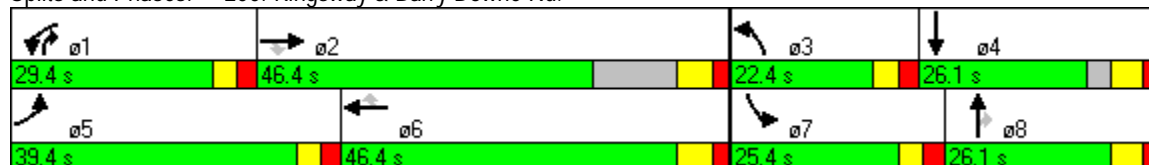


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0			21.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	28.1	42.9	42.9	14.5	29.2	29.2	9.0	17.1	37.8	20.3	28.5	118.5
Actuated g/C Ratio	0.24	0.36	0.36	0.12	0.25	0.25	0.08	0.14	0.32	0.17	0.24	1.00
v/c Ratio	0.85	0.71	0.15	0.65	0.77	0.75	0.44	0.70	0.32	0.88	0.44	0.33
Control Delay	54.8	36.3	5.8	65.6	48.5	22.8	60.4	57.7	33.2	66.3	42.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	36.3	5.8	65.6	48.5	22.8	60.4	57.7	33.2	66.3	42.5	0.5
LOS	D	D	A	E	D	C	E	E	C	E	D	A
Approach Delay		42.2			41.0			51.9			35.8	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	85.5	99.7	0.0	34.2	81.0	37.8	14.4	44.8	30.4	66.3	42.3	0.0
Queue Length 95th (m)	120.8	136.3	11.7	60.4	109.4	84.1	26.5	69.3	52.9	#117.9	68.1	0.0
Internal Link Dist (m)		525.9			449.7			363.7			353.3	
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	955	1422	645	338	1092	620	476	590	531	595	859	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.64	0.15	0.42	0.61	0.75	0.24	0.61	0.31	0.88	0.44	0.33

Intersection Summary

Area Type: Other
 Cycle Length: 137.3
 Actuated Cycle Length: 118.5
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 41.3 Intersection LOS: D
 Intersection Capacity Utilization 79.3% 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: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

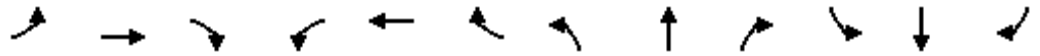
Weekday PM peak hour

Future background volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 		
Volume (vph)	615	670	320	80	445	320	280	460	90	450	460	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			311			327			16			474
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	3%	2%	1%	5%	5%	2%	1%	2%	5%	2%	2%
Adj. Flow (vph)	628	684	327	82	454	327	286	469	92	459	469	474
Shared Lane Traffic (%)												
Lane Group Flow (vph)	628	684	327	82	454	327	286	561	0	459	469	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Prot		Free	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	30.7	30.7	20.0	31.7	31.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	25.9%	24.1%	24.1%	15.7%	24.9%	24.9%	15.7%	26.5%	0.0%	22.8%	25.7%	0.0%
Maximum Green (s)	28.0	24.0	24.0	15.0	25.0	25.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Weekday PM peak hour
Future background volumes; signal adjustments (with Maley Drive)

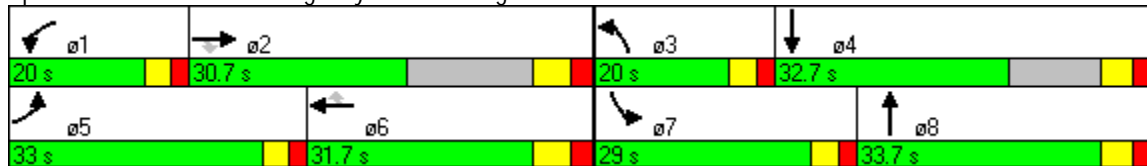


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0			18.0	18.0		20.0			19.0
Pedestrian Calls (#/hr)		0	0			0	0		0			0
Act Effct Green (s)	24.3	39.1	39.1	10.3	22.3	22.3	13.3	22.8		19.9	29.4	113.1
Actuated g/C Ratio	0.21	0.35	0.35	0.09	0.20	0.20	0.12	0.20		0.18	0.26	1.00
v/c Ratio	0.84	0.56	0.44	0.52	0.67	0.58	0.71	0.79		0.78	0.51	0.30
Control Delay	54.9	34.9	6.5	63.5	49.2	9.1	60.0	51.2		55.8	38.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	54.9	34.9	6.5	63.5	49.2	9.1	60.0	51.2		55.8	38.3	0.5
LOS	D	C	A	E	D	A	E	D		E	D	A
Approach Delay		36.9			35.4			54.2			31.2	
Approach LOS		D			D			D			C	
Queue Length 50th (m)	73.9	72.6	2.6	19.1	54.5	0.0	34.2	65.4		54.5	50.5	0.0
Queue Length 95th (m)	#104.5	104.7	26.5	37.3	78.0	26.9	53.7	92.8		78.5	71.0	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	839	1233	751	224	750	566	454	820		689	1072	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.75	0.55	0.44	0.37	0.61	0.58	0.63	0.68		0.67	0.44	0.30

Intersection Summary

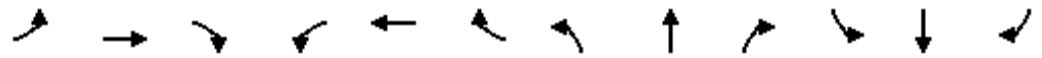
Area Type: Other
 Cycle Length: 127.4
 Actuated Cycle Length: 113.1
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 38.0
 Intersection LOS: D
 Intersection Capacity Utilization 82.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Future background volumes; signal adjustments (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	460	355	85	15	205	160	30	70	15	200	90	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95	0.98	0.99			0.99			0.99	0.94
Frt			0.850		0.934			0.983				0.850
Flt Protected	0.950			0.950				0.987			0.967	
Satd. Flow (prot)	1787	1881	1615	1805	1726	0	0	1833	0	0	1800	1583
Flt Permitted	0.297			0.543				0.812			0.601	
Satd. Flow (perm)	557	1881	1539	1015	1726	0	0	1498	0	0	1107	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88		45			6				195
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	0%	0%	2%	1%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	474	366	88	15	211	165	31	72	15	206	93	330
Shared Lane Traffic (%)												
Lane Group Flow (vph)	474	366	88	15	376	0	0	118	0	0	299	330
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	20.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	11.0	25.7	25.7
Total Split (%)	19.5%	44.6%	44.6%	44.6%	44.6%	0.0%	25.1%	25.1%	0.0%	10.7%	25.1%	25.1%
Maximum Green (s)	16.0	40.0	40.0	40.0	40.0		20.0	20.0		7.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Future background volumes; signal adjustments (with Maley Drive)

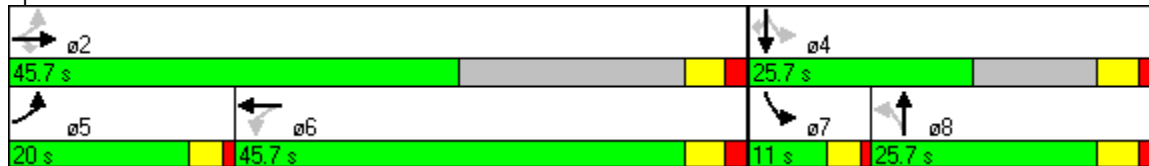


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effect Green (s)	46.1	44.4	44.4	24.1	24.1			11.8			21.5	21.5
Actuated g/C Ratio	0.60	0.57	0.57	0.31	0.31			0.15			0.28	0.28
v/c Ratio	0.80	0.34	0.10	0.05	0.66			0.53			0.80	0.59
Control Delay	22.7	10.5	2.4	20.0	27.1			39.2			44.0	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	22.7	10.5	2.4	20.0	27.1			39.2			44.0	15.1
LOS	C	B	A	B	C			D			D	B
Approach Delay		15.9			26.9			39.2			28.8	
Approach LOS		B			C			D			C	
Queue Length 50th (m)	37.4	28.0	0.0	1.6	44.2			15.6			37.4	15.5
Queue Length 95th (m)	#91.9	51.9	6.2	6.3	79.7			36.0			#86.5	47.3
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	590	1215	1025	437	769			345			581	660
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.80	0.30	0.09	0.03	0.49			0.34			0.51	0.50

Intersection Summary
























Area Type: Other
 Cycle Length: 102.4
 Actuated Cycle Length: 77.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 23.3
 Intersection LOS: C
 Intersection Capacity Utilization 81.7%
 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: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	455	305	290	520	140	375	350	290	180	485	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99							0.99
Frt			0.850		0.968				0.850			0.969
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			314		28				299		24	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	175	469	314	299	536	144	387	361	299	186	500	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	469	314	299	680	0	387	361	299	186	629	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	36.0	36.0	28.0	39.0	0.0	27.0	31.0	31.0	25.0	29.0	0.0
Total Split (%)	20.8%	30.0%	30.0%	23.3%	32.5%	0.0%	22.5%	25.8%	25.8%	20.8%	24.2%	0.0%
Maximum Green (s)	20.0	30.3	30.3	23.0	33.3		22.0	25.3	25.3	20.0	23.3	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
 Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0			7.0
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0			16.0
Pedestrian Calls (#/hr)		0	0		0			0	0			0
Act Effect Green (s)	16.0	31.2	31.2	22.1	37.3		22.0	28.6	28.6	16.6		23.2
Actuated g/C Ratio	0.13	0.26	0.26	0.18	0.31		0.18	0.24	0.24	0.14		0.19
v/c Ratio	0.74	0.51	0.49	0.91	0.64		1.18	0.43	0.50	0.76		0.92
Control Delay	68.1	40.5	6.7	78.9	38.0		151.0	41.4	7.6	69.1		66.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	68.1	40.5	6.7	78.9	38.0		151.0	41.4	7.6	69.1		66.2
LOS	E	D	A	E	D		F	D	A	E		E
Approach Delay		34.5			50.5			72.2				66.9
Approach LOS		C			D			E				E
Queue Length 50th (m)	42.1	53.1	0.0	72.6	73.8		-115.1	40.3	0.0	44.7		78.2
Queue Length 95th (m)	65.2	70.4	23.1	#123.2	99.2		#177.5	57.5	24.2	68.9		#114.1
Internal Link Dist (m)		262.9			313.0			293.9				202.1
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	295	925	644	343	1067		328	845	602	295		686
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	0.59	0.51	0.49	0.87	0.64		1.18	0.43	0.50	0.63		0.92

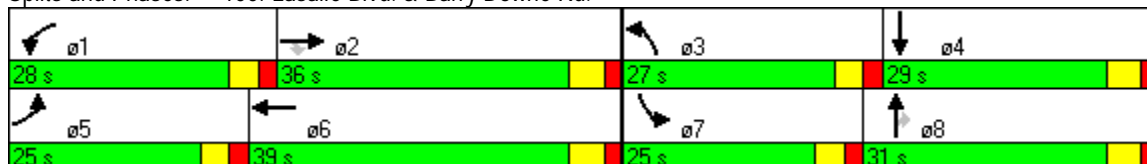
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 55.9
 Intersection Capacity Utilization 98.3%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
























95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



Lanes, Volumes, Timings
105: Lasalle Blvd. & Falconbridge Rd.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	75	280	130	155	65	330	850	80	15	490	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	40.0		0.0	55.0		0.0	40.0		30.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	15.0		7.5	40.0		7.5	70.0		7.5	20.0		30.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Fr _t			0.850		0.956			0.987				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1881	1509	1719	1776	0	1736	3493	0	1444	3505	1568
Fl _t Permitted	0.347			0.707			0.303			0.299		
Satd. Flow (perm)	646	1881	1509	1279	1776	0	554	3493	0	454	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289		16			12				141
Link Speed (k/h)		50			50			50				50
Link Distance (m)		226.4			295.5			253.8				227.6
Travel Time (s)		16.3			21.3			18.3				16.4
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	1%	7%	5%	2%	3%	4%	2%	2%	25%	3%	3%
Adj. Flow (vph)	258	77	289	134	160	67	340	876	82	15	505	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	77	289	134	227	0	340	958	0	15	505	180
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		pm+pt				Perm		Perm
Protected Phases	7	4		3	8		5	2				6
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4		3	8		5	2		6		6
Switch Phase	8											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		7.0	20.0		20.0	20.0	20.0
Minimum Split (s)	11.0	35.4	35.4	11.0	38.4		11.0	33.8		33.8	33.8	33.8
Total Split (s)	32.0	21.4	21.4	16.0	21.4	0.0	22.0	36.8	0.0	36.8	36.8	36.8
Total Split (%)	28.5%	19.1%	19.1%	14.3%	19.1%	0.0%	19.6%	32.8%	0.0%	32.8%	32.8%	32.8%
Maximum Green (s)	28.0	15.0	15.0	12.0	15.0		18.0	30.0		30.0	30.0	30.0
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	4.2		4.2	4.2	4.2
All-Red Time (s)	1.0	2.7	2.7	1.0	2.7		1.0	2.6		2.6	2.6	2.6
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)	4.0	6.4	6.4	4.0	6.4	4.0	4.0	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.5	3.5	2.5	3.5		2.5	4.5		4.5	4.5	4.5
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)		7.0	7.0		7.0			7.0		7.0	7.0	7.0

Lanes, Volumes, Timings
 105: Lasalle Blvd. & Falconbridge Rd.

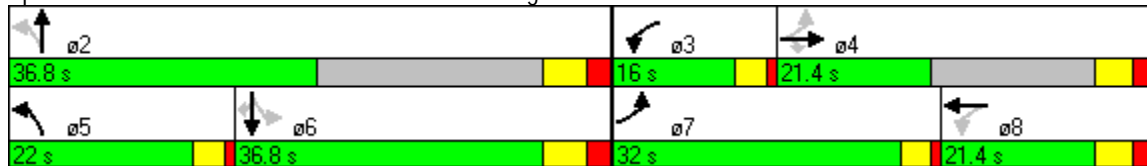
Weekday PM peak hour
 Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		25.0			20.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effct Green (s)	38.3	24.9	24.9	27.0	15.2		46.3	43.4		22.9	22.9	22.9
Actuated g/C Ratio	0.41	0.27	0.27	0.28	0.16		0.50	0.47		0.25	0.25	0.25
v/c Ratio	0.55	0.15	0.47	0.33	0.75		0.70	0.58		0.13	0.58	0.37
Control Delay	24.2	30.5	6.6	21.7	52.9		23.7	19.8		32.9	34.6	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.2	30.5	6.6	21.7	52.9		23.7	19.8		32.9	34.6	11.1
LOS	C	C	A	C	D		C	B		C	C	B
Approach Delay		16.8			41.3			20.9			28.5	
Approach LOS		B			D			C			C	
Queue Length 50th (m)	32.0	11.4	0.0	15.4	37.5		37.3	64.5		2.2	44.4	5.7
Queue Length 95th (m)	58.3	25.9	21.0	31.5	#92.1		68.3	98.5		8.5	67.9	24.4
Internal Link Dist (m)		202.4			271.5			229.8			203.6	
Turn Bay Length (m)	90.0			40.0			55.0			40.0		30.0
Base Capacity (vph)	543	596	617	443	304		500	1805		137	1059	572
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	0.48	0.13	0.47	0.30	0.75		0.68	0.53		0.11	0.48	0.31

Intersection Summary




























Area Type: Other
 Cycle Length: 112.2
 Actuated Cycle Length: 92.7
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 24.3
 Intersection LOS: C
 Intersection Capacity Utilization 88.7%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 105: Lasalle Blvd. & Falconbridge Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 				
Volume (vph)	665	1040	90	135	1095	745	110	340	155	605	360	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			88			322						521
Link Speed (k/h)		50			50			50				50
Link Distance (m)		549.9			473.7			387.7				377.3
Travel Time (s)		39.6			34.1			27.9				27.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	700	1095	95	142	1153	784	116	358	163	637	379	521
Shared Lane Traffic (%)												
Lane Group Flow (vph)	700	1095	95	142	1153	784	116	358	163	637	379	521
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	39.4	46.4	46.4	29.4	46.4	46.4	22.4	26.1	29.4	29.4	26.1	0.0
Total Split (%)	27.9%	32.8%	32.8%	20.8%	32.8%	32.8%	15.9%	18.5%	20.8%	20.8%	18.5%	0.0%
Maximum Green (s)	34.0	40.0	40.0	24.0	40.0	40.0	17.0	20.0	24.0	24.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

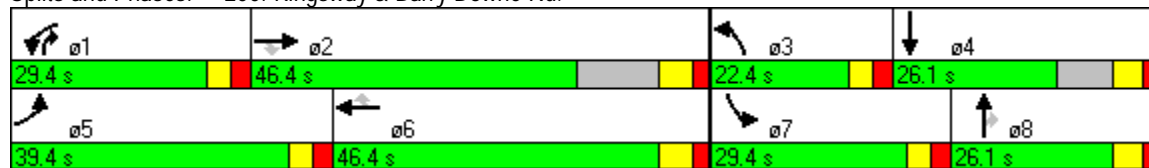
Weekday PM peak hour
Total future volumes (with Maley Drive)

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0			21.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	30.8	55.2	55.2	15.7	40.1	40.1	9.4	18.2	40.0	24.0	32.9	136.5
Actuated g/C Ratio	0.23	0.40	0.40	0.12	0.29	0.29	0.07	0.13	0.29	0.18	0.24	1.00
v/c Ratio	0.89	0.76	0.13	0.69	1.12	1.13	0.48	0.76	0.34	1.04	0.44	0.33
Control Delay	66.3	40.3	7.0	75.7	111.5	103.2	68.7	68.5	39.5	102.0	46.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	40.3	7.0	75.7	111.5	103.2	68.7	68.5	39.5	102.0	46.7	0.5
LOS	E	D	A	E	F	F	E	E	D	F	D	A
Approach Delay		48.3			105.9			61.1			54.0	
Approach LOS		D			F			E			D	
Queue Length 50th (m)	101.5	143.0	1.2	40.6	~208.3	~197.7	17.1	53.3	37.2	~106.3	49.5	0.0
Queue Length 95th (m)	126.1	184.3	13.5	62.2	#255.7	#280.3	27.5	72.0	55.2	#147.1	68.3	0.0
Internal Link Dist (m)		525.9			449.7			363.7			353.3	
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	845	1432	706	296	1029	692	414	512	480	611	860	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.76	0.13	0.48	1.12	1.13	0.28	0.70	0.34	1.04	0.44	0.33

Intersection Summary




































Area Type: Other
 Cycle Length: 141.3
 Actuated Cycle Length: 136.5
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 70.5
 Intersection LOS: E
 Intersection Capacity Utilization 95.3%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	 	 	 	 	 	 	 	 	
Volume (vph)	615	960	320	80	1210	475	280	460	90	510	460	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			217			256		16				474
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	3%	2%	1%	5%	5%	2%	1%	2%	5%	2%	2%
Adj. Flow (vph)	628	980	327	82	1235	485	286	469	92	520	469	474
Shared Lane Traffic (%)												
Lane Group Flow (vph)	628	980	327	82	1235	485	286	561	0	520	469	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Prot		Prot	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	30.7	30.7	20.0	31.7	31.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	25.9%	24.1%	24.1%	15.7%	24.9%	24.9%	15.7%	26.5%	0.0%	22.8%	25.7%	0.0%
Maximum Green (s)	28.0	24.0	24.0	15.0	25.0	25.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
 205: Kingsway & Falconbridge Rd.

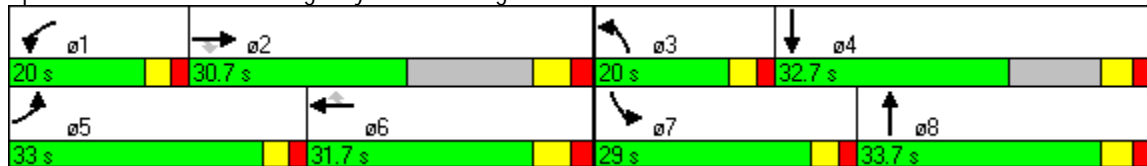
Weekday PM peak hour
 Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0			18.0	18.0			20.0		19.0
Pedestrian Calls (#/hr)		0	0			0	0			0		0
Act Effct Green (s)	25.0	42.5	42.5	10.4	25.2	25.2	13.5	23.5		21.8	31.7	119.1
Actuated g/C Ratio	0.21	0.36	0.36	0.09	0.21	0.21	0.11	0.20		0.18	0.27	1.00
v/c Ratio	0.86	0.78	0.46	0.54	1.70	0.92	0.73	0.80		0.85	0.50	0.30
Control Delay	58.9	41.9	13.9	66.6	350.4	46.6	63.9	54.5		62.0	39.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	58.9	41.9	13.9	66.6	350.4	46.6	63.9	54.5		62.0	39.3	0.5
LOS	E	D	B	E	F	D	E	D		E	D	A
Approach Delay		42.7			255.7			57.7				34.8
Approach LOS		D			F			E				C
Queue Length 50th (m)	80.4	122.8	20.3	20.7	~252.6	65.0	37.2	71.2		67.1	53.6	0.0
Queue Length 95th (m)	#104.5	#175.1	52.3	37.3	#303.4	#138.1	53.7	92.8		#94.1	71.0	0.0
Internal Link Dist (m)		449.7			950.0			296.5				759.8
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	799	1250	704	213	728	527	430	782		663	1036	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.79	0.78	0.46	0.38	1.70	0.92	0.67	0.72		0.78	0.45	0.30

Intersection Summary






















Area Type: Other
 Cycle Length: 127.4
 Actuated Cycle Length: 119.1
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.70
 Intersection Signal Delay: 106.4
 Intersection LOS: F
 Intersection Capacity Utilization 100.6%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.















Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1395	75	60	1665	0	40	0	45	5	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	3.0	3.6	3.0	3.0
Storage Length (m)	100.0		90.0	30.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (m)	100.0		75.0	40.0		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			0.850
Flt Protected	0.950			0.950				0.950				0.976
Satd. Flow (prot)	1504	3539	1615	1805	3505	0	0	1685	1507	0	1731	1507
Flt Permitted	0.950			0.950				0.751				0.841
Satd. Flow (perm)	1504	3539	1615	1805	3505	0	0	1332	1507	0	1491	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81						48			11
Link Speed (k/h)		60			80			50				50
Link Distance (m)		974.0			667.8			260.4				172.8
Travel Time (s)		58.4			30.1			18.7				12.4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	2%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	1500	81	65	1790	0	43	0	48	5	5	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1500	81	65	1790	0	0	43	48	0	10	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm		Perm	Perm	Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2				8		8	4		4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	10.0	37.1	37.1	10.0	37.1		33.5	33.5	33.5	33.5	33.5	33.5
Total Split (s)	15.0	57.1	57.1	17.0	57.1	0.0	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	15.1%	57.3%	57.3%	17.1%	57.3%	0.0%	25.6%	25.6%	25.6%	25.6%	25.6%	25.6%
Maximum Green (s)	10.0	50.0	50.0	12.0	50.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	5.1	5.1	3.0	5.1		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.2	2.2	2.2	2.2	2.2	2.2
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)	5.0	7.1	7.1	5.0	7.1	4.0	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0		3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None

Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		15.0	15.0		15.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	0
Act Effct Green (s)	6.0	61.8	61.8	8.9	71.6			9.7	9.7		9.7	9.7
Actuated g/C Ratio	0.06	0.66	0.66	0.09	0.77			0.10	0.10		0.10	0.10
v/c Ratio	0.06	0.64	0.07	0.38	0.66			0.32	0.24		0.07	0.07
Control Delay	42.6	13.5	2.4	42.6	9.1			42.2	14.2		35.8	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	42.6	13.5	2.4	42.6	9.1			42.2	14.2		35.8	19.4
LOS	D	B	A	D	A			D	B		D	B
Approach Delay		13.1			10.3			27.4			27.2	
Approach LOS		B			B			C			C	
Queue Length 50th (m)	0.8	87.2	0.0	10.5	65.2			6.9	0.0		1.6	0.0
Queue Length 95th (m)	4.5	137.5	6.3	23.6	167.2			17.6	10.0		6.5	5.0
Internal Link Dist (m)		950.0			643.8			236.4			148.8	
Turn Bay Length (m)	100.0		90.0	30.0								
Base Capacity (vph)	144	2346	1098	226	2694			257	329		287	300
Starvation Cap Reductn	0	0	0	0	0			0	0		0	0
Spillback Cap Reductn	0	0	0	0	0			0	0		0	0
Storage Cap Reductn	0	0	0	0	0			0	0		0	0
Reduced v/c Ratio	0.03	0.64	0.07	0.29	0.66			0.17	0.15		0.03	0.04

Intersection Summary

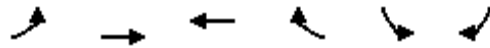
Area Type:	Other
Cycle Length:	99.6
Actuated Cycle Length:	93.2
Natural Cycle:	105
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	12.1
Intersection LOS:	B
Intersection Capacity Utilization:	74.4%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 210: Kingsway & 3rd Ave.



Lanes, Volumes, Timings
215: Kingsway & Street A

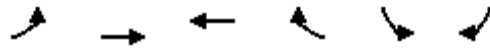
Weekday PM peak hour
Total future volumes (with Maley Drive)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↗	↕	↕	↖	↗	↖
Volume (vph)	275	1170	1030	175	360	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0			100.0	0.0	0.0
Storage Lanes	2			1	1	1
Taper Length (m)	60.0			60.0	7.5	7.5
Lane Util. Factor	0.97	0.95	0.95	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	1770	1583
Fl _t Permitted	0.117				0.950	
Satd. Flow (perm)	423	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				179		624
Link Speed (k/h)		80	80		50	
Link Distance (m)		514.2	612.8		214.8	
Travel Time (s)		23.1	27.6		15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	1272	1120	190	391	728
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	1272	1120	190	391	728
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		7.2	7.2		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Turn Type	pm+pt			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	11.0	23.9	30.9	30.9	28.6	28.6
Total Split (s)	44.0	37.9	37.9	37.9	35.6	35.6
Total Split (%)	37.4%	32.3%	32.3%	32.3%	30.3%	30.3%
Maximum Green (s)	40.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.9	5.9	5.9	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.9	7.9	7.9	5.6	5.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	None	None
Walk Time (s)			7.0	7.0	7.0	7.0
Flash Dont Walk (s)			16.0	16.0	16.0	16.0

Lanes, Volumes, Timings
215: Kingsway & Street A

Weekday PM peak hour
Total future volumes (with Maley Drive)

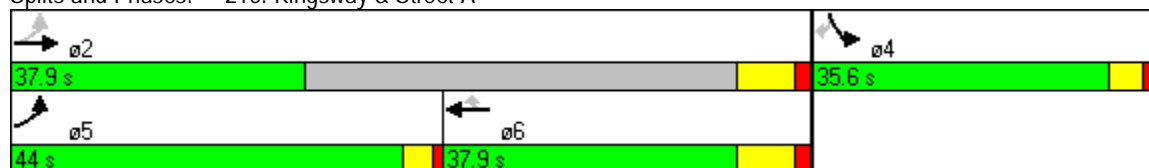


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Pedestrian Calls (#/hr)			0	0	0	0
Act Effect Green (s)	48.6	44.7	30.2	30.2	25.5	25.5
Actuated g/C Ratio	0.58	0.53	0.36	0.36	0.30	0.30
v/c Ratio	0.48	0.67	0.88	0.28	0.73	0.79
Control Delay	11.7	17.1	36.0	5.4	34.8	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	17.1	36.0	5.4	34.8	11.8
LOS	B	B	D	A	C	B
Approach Delay		16.1	31.5		19.8	
Approach LOS		B	C		B	
Queue Length 50th (m)	11.6	81.1	94.6	1.2	58.0	12.9
Queue Length 95th (m)	19.2	111.4	#148.7	15.9	93.3	61.0
Internal Link Dist (m)		490.2	588.8		190.8	
Turn Bay Length (m)	150.0			100.0		
Base Capacity (vph)	1247	2318	1275	685	603	951
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	0.24	0.55	0.88	0.28	0.65	0.77

Intersection Summary

























Area Type: Other
 Cycle Length: 117.5
 Actuated Cycle Length: 83.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 22.2
 Intersection LOS: C
 Intersection Capacity Utilization 81.2%
 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: 215: Kingsway & Street A



Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	1180	260	80	815	40	105	25	125	135	95	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		100.0	20.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	60.0		65.0	95.0		60.0	20.0		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3539	1583	1736	3438	1454	1805	1622	0	1805	1900	1615
Flt Permitted	0.280			0.132			0.692			0.656		
Satd. Flow (perm)	532	3539	1583	241	3438	1454	1315	1622	0	1246	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			277			43		133				208
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	90	1255	277	85	867	43	112	27	133	144	101	303
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	1255	277	85	867	43	112	160	0	144	101	303
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	1	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8		27.8	27.8	27.8
Total Split (s)	9.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8	0.0	27.8	27.8	27.8
Total Split (%)	12.0%	50.7%	50.7%	12.0%	50.7%	50.7%	37.2%	37.2%	0.0%	37.2%	37.2%	37.2%
Maximum Green (s)	5.0	30.0	30.0	5.0	30.0	30.0	21.0	21.0		21.0	21.0	21.0
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	3.2	3.2		3.2	3.2	3.2
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)	4.0	7.9	7.9	4.0	7.9	7.9	6.8	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	None

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

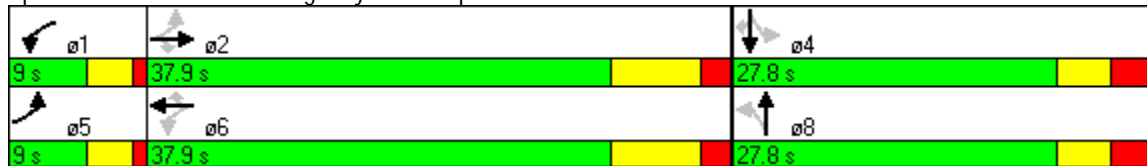
Weekday PM peak hour
Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		16.0	16.0		16.0	16.0	14.0	14.0		14.0	14.0	14.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	38.0	30.4	30.4	38.0	30.4	30.4	13.7	13.7		13.7	13.7	13.7
Actuated g/C Ratio	0.56	0.46	0.46	0.56	0.46	0.46	0.21	0.21		0.21	0.21	0.21
v/c Ratio	0.23	0.77	0.31	0.35	0.55	0.06	0.41	0.36		0.56	0.26	0.60
Control Delay	7.5	20.9	3.1	10.0	15.9	5.0	27.6	8.9		32.4	23.6	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	7.5	20.9	3.1	10.0	15.9	5.0	27.6	8.9		32.4	23.6	13.7
LOS	A	C	A	B	B	A	C	A		C	C	B
Approach Delay		17.1			14.9			16.6			20.4	
Approach LOS		B			B			B			C	
Queue Length 50th (m)	3.8	70.5	0.0	3.6	42.0	0.0	13.0	2.9		17.3	11.3	10.7
Queue Length 95th (m)	11.3	#129.6	13.5	10.9	71.6	5.7	26.5	16.4		33.7	22.9	32.1
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)	75.0		90.0	30.0		100.0	20.0					
Base Capacity (vph)	393	1634	880	246	1587	694	380	563		360	549	615
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.23	0.77	0.31	0.35	0.55	0.06	0.29	0.28		0.40	0.18	0.49

Intersection Summary























Area Type: Other
 Cycle Length: 74.7
 Actuated Cycle Length: 65.9
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 17.0
 Intersection LOS: B
 Intersection Capacity Utilization 74.8%
 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: 220: Kingsway & Levesque St.



Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1420	70	25	980	10	40	5	30	10	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		20.0	50.0		75.0	20.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	100.0		40.0	100.0		95.0	30.0		7.5	15.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850		0.870			0.870	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3471	1583	1736	3438	1615	1805	1653	0	1530	1521	0
Fl _t Permitted	0.950			0.950			0.732			0.732		
Satd. Flow (perm)	1687	3471	1583	1736	3438	1615	1391	1653	0	1179	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			11			33			33
Link Speed (k/h)		80			80			50				50
Link Distance (m)		457.8			1178.3			983.3				168.8
Travel Time (s)		20.6			53.0			70.8				12.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	4%	2%	4%	5%	0%	0%	0%	0%	18%	0%	10%
Adj. Flow (vph)	16	1560	77	27	1077	11	44	5	33	11	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1560	77	27	1077	11	44	38	0	11	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	37.9	37.9	10.0	37.9	37.9	30.7	30.7		30.7	30.7	
Total Split (s)	23.0	67.9	67.9	20.0	67.9	67.9	31.7	31.7	0.0	31.7	31.7	0.0
Total Split (%)	18.8%	55.4%	55.4%	16.3%	55.4%	55.4%	25.9%	25.9%	0.0%	25.9%	25.9%	0.0%
Maximum Green (s)	18.0	60.0	60.0	15.0	60.0	60.0	25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	4.1	4.1		4.1	4.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6		2.6	2.6	
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)	5.0	7.9	7.9	5.0	7.9	7.9	6.7	6.7	4.0	6.7	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	4.0	4.0		4.0	4.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	

Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

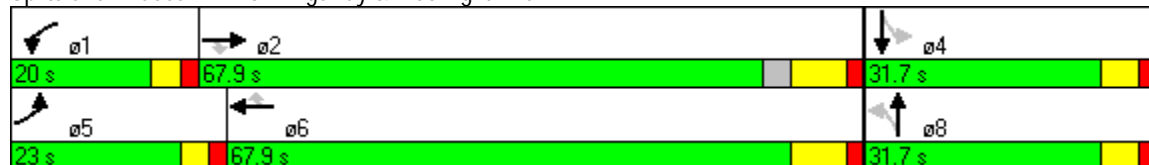
Weekday PM peak hour
Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	17.0	17.0		17.0	17.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	6.7	65.5	65.5	7.3	68.1	68.1	10.3	10.3		10.3	10.3	
Actuated g/C Ratio	0.07	0.71	0.71	0.07	0.74	0.74	0.11	0.11		0.11	0.11	
v/c Ratio	0.14	0.63	0.07	0.21	0.43	0.01	0.29	0.18		0.09	0.20	
Control Delay	47.6	11.3	5.6	45.9	6.9	3.5	43.1	18.6		39.9	18.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	47.6	11.3	5.6	45.9	6.9	3.5	43.1	18.6		39.9	18.9	
LOS	D	B	A	D	A	A	D	B		D	B	
Approach Delay		11.3			7.8			31.7			23.6	
Approach LOS		B			A			C			C	
Queue Length 50th (m)	2.5	59.7	2.4	4.2	33.0	0.0	6.6	0.7		1.6	0.7	
Queue Length 95th (m)	10.0	146.6	10.9	14.0	80.0	2.3	19.4	10.5		7.6	10.5	
Internal Link Dist (m)		433.8			1154.3			959.3			144.8	
Turn Bay Length (m)	30.0		20.0	50.0		75.0	20.0			20.0		
Base Capacity (vph)	277	2559	1172	250	2602	1225	329	416		279	385	
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	0.06	0.61	0.07	0.11	0.41	0.01	0.13	0.09		0.04	0.10	

Intersection Summary





















Area Type: Other
 Cycle Length: 122.6
 Actuated Cycle Length: 92.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 10.8
 Intersection LOS: B
 Intersection Capacity Utilization 60.3%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 225: Kingsway & Moonlight Ave.



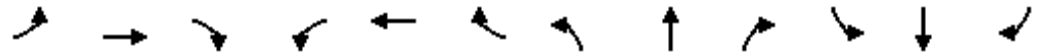
Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	480	385	85	15	285	160	30	70	15	200	90	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95	0.98	0.99			0.99			0.99	0.94
Frt			0.850		0.946			0.983				0.850
Flt Protected	0.950			0.950				0.987			0.967	
Satd. Flow (prot)	1787	1881	1615	1805	1751	0	0	1833	0	0	1800	1583
Flt Permitted	0.229			0.528				0.812			0.589	
Satd. Flow (perm)	430	1881	1539	987	1751	0	0	1498	0	0	1085	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88		32			6				195
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	0%	0%	2%	1%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	495	397	88	15	294	165	31	72	15	206	93	330
Shared Lane Traffic (%)												
Lane Group Flow (vph)	495	397	88	15	459	0	0	118	0	0	299	330
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	20.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	11.0	25.7	25.7
Total Split (%)	19.5%	44.6%	44.6%	44.6%	44.6%	0.0%	25.1%	25.1%	0.0%	10.7%	25.1%	25.1%
Maximum Green (s)	16.0	40.0	40.0	40.0	40.0		20.0	20.0		7.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Total future volumes (with Maley Drive)

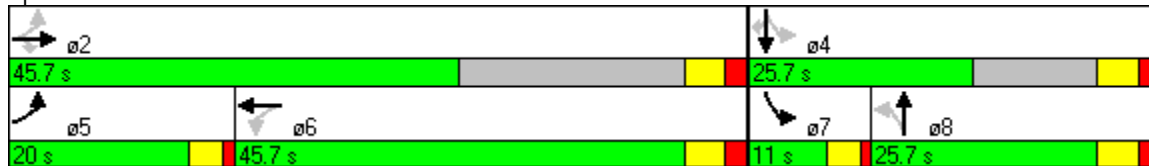


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effect Green (s)	50.1	48.4	48.4	28.0	28.0			12.2			22.6	22.6
Actuated g/C Ratio	0.61	0.59	0.59	0.34	0.34			0.14			0.27	0.27
v/c Ratio	0.94	0.36	0.09	0.04	0.75			0.54			0.81	0.60
Control Delay	42.6	10.5	2.2	19.0	31.0			42.4			48.1	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	42.6	10.5	2.2	19.0	31.0			42.4			48.1	16.4
LOS	D	B	A	B	C			D			D	B
Approach Delay		25.9			30.6			42.4			31.4	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	47.0	31.6	0.0	1.6	61.5			17.2			42.2	17.5
Queue Length 95th (m)	#131.0	57.3	6.0	6.1	105.1			38.6			#98.8	51.5
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	529	1201	1014	420	763			328			546	641
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.94	0.33	0.09	0.04	0.60			0.36			0.55	0.51

Intersection Summary
























Area Type: Other
 Cycle Length: 102.4
 Actuated Cycle Length: 82.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 29.4
 Intersection LOS: C
 Intersection Capacity Utilization 86.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	455	305	290	520	140	375	350	290	180	485	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99							0.99
Frt			0.850		0.968				0.850		0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3369	0	1787	3539	1568	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			314		27				299		24	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	175	469	314	299	536	144	387	361	299	186	500	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	469	314	299	680	0	387	361	299	186	629	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	36.0	36.0	25.0	36.0	0.0	30.0	33.0	33.0	26.0	29.0	0.0
Total Split (%)	20.8%	30.0%	30.0%	20.8%	30.0%	0.0%	25.0%	27.5%	27.5%	21.7%	24.2%	0.0%
Maximum Green (s)	20.0	30.3	30.3	20.0	30.3		25.0	27.3	27.3	21.0	23.3	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

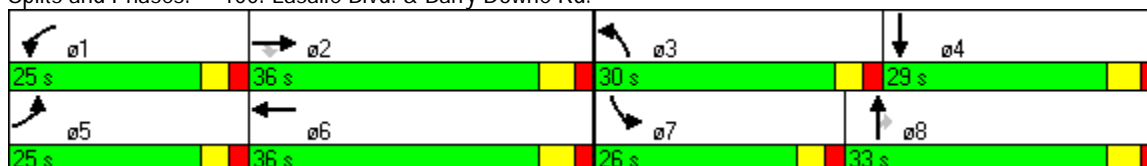
Weekday PM peak hour
 Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	16.0	30.4	30.4	20.0	34.4		25.0	31.4	31.4	16.8	23.2	
Actuated g/C Ratio	0.13	0.25	0.25	0.17	0.29		0.21	0.26	0.26	0.14	0.19	
v/c Ratio	0.74	0.52	0.49	1.00	0.69		1.04	0.39	0.47	0.75	0.93	
Control Delay	68.1	41.1	6.8	103.3	41.6		103.9	38.8	7.0	67.7	66.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	68.1	41.1	6.8	103.3	41.6		103.9	38.8	7.0	67.7	66.6	
LOS	E	D	A	F	D		F	D	A	E	E	
Approach Delay		34.8			60.4			53.8			66.9	
Approach LOS		C			E			D			E	
Queue Length 50th (m)	42.1	52.9	0.0	-75.4	76.6		-103.6	39.0	0.0	44.6	78.5	
Queue Length 95th (m)	65.2	70.4	23.1	#134.7	103.0		#166.0	56.2	23.5	68.2	#114.1	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	295	899	635	298	985		372	925	631	310	684	
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	0.59	0.52	0.49	1.00	0.69		1.04	0.39	0.47	0.60	0.92	

Intersection Summary
































Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 53.5
 Intersection LOS: D
 Intersection Capacity Utilization 98.3%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (vph)	665	1040	90	135	1095	745	110	340	155	605	360	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			88			341						521
Link Speed (k/h)		50			50			50				50
Link Distance (m)		549.9			473.7			387.7				377.3
Travel Time (s)		39.6			34.1			27.9				27.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	700	1095	95	142	1153	784	116	358	163	637	379	521
Shared Lane Traffic (%)												
Lane Group Flow (vph)	700	1095	95	142	1153	784	116	358	163	637	379	521
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	32.4	46.4	46.4	29.4	46.4	46.4	22.4	26.1	29.4	29.4	26.1	0.0
Total Split (%)	24.1%	34.5%	34.5%	21.9%	34.5%	34.5%	16.7%	19.4%	21.9%	21.9%	19.4%	0.0%
Maximum Green (s)	27.0	40.0	40.0	24.0	40.0	40.0	17.0	20.0	24.0	24.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0			19.0	19.0			21.0		21.0
Pedestrian Calls (#/hr)		0	0			0	0			0		0
Act Effct Green (s)	27.0	51.7	51.7	15.3	40.0	40.0	9.3	18.0	39.4	24.0	32.7	132.3
Actuated g/C Ratio	0.20	0.39	0.39	0.12	0.30	0.30	0.07	0.14	0.30	0.18	0.25	1.00
v/c Ratio	0.99	0.79	0.14	0.69	1.09	1.09	0.47	0.74	0.34	1.01	0.43	0.33
Control Delay	83.8	41.7	7.4	72.8	98.2	87.3	65.6	65.0	37.3	92.5	44.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	41.7	7.4	72.8	98.2	87.3	65.6	65.0	37.3	92.5	44.0	0.5
LOS	F	D	A	E	F	F	E	E	D	F	D	A
Approach Delay		55.5			92.4			58.0				49.3
Approach LOS		E			F			E				D
Queue Length 50th (m)	100.9	140.5	1.2	38.4	~190.0	~175.7	16.2	50.4	35.0	~96.4	46.4	0.0
Queue Length 95th (m)	#144.6	#194.2	13.8	59.4	#236.6	#257.4	26.3	68.1	51.9	#136.5	64.1	0.0
Internal Link Dist (m)		525.9			449.7			363.7				353.3
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	708	1383	685	304	1060	716	425	527	490	629	884	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.79	0.14	0.47	1.09	1.09	0.27	0.68	0.33	1.01	0.43	0.33

Intersection Summary































Area Type: Other
 Cycle Length: 134.3
 Actuated Cycle Length: 132.3
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 66.7 Intersection LOS: E
 Intersection Capacity Utilization 95.3% ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (vph)	615	960	320	80	1210	475	280	460	90	510	460	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3505	1583	1787	3438	1538	3433	3479	0	3335	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			217			256			14			474
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	3%	2%	1%	5%	5%	2%	1%	2%	5%	2%	2%
Adj. Flow (vph)	628	980	327	82	1235	485	286	469	92	520	469	474
Shared Lane Traffic (%)												
Lane Group Flow (vph)	628	980	327	82	1235	485	286	561	0	520	469	474
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	30.7	30.7	20.0	51.7	51.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	22.4%	20.8%	20.8%	13.6%	35.1%	35.1%	13.6%	22.9%	0.0%	19.7%	22.2%	0.0%
Maximum Green (s)	28.0	24.0	24.0	15.0	45.0	45.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
 205: Kingsway & Falconbridge Rd.

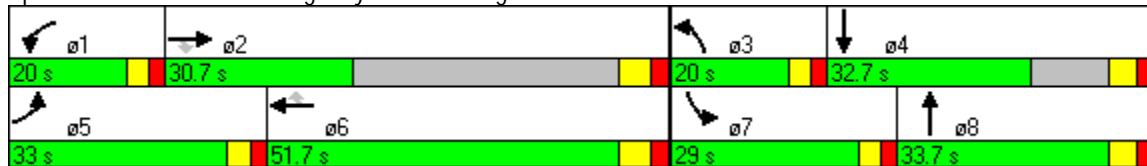
Weekday PM peak hour
 Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0			18.0	18.0			20.0		19.0
Pedestrian Calls (#/hr)		0	0			0	0			0		0
Act Effct Green (s)	27.7	61.4	61.4	11.3	45.0	45.0	14.5	26.0		23.9	35.4	146.1
Actuated g/C Ratio	0.19	0.42	0.42	0.08	0.31	0.31	0.10	0.18		0.16	0.24	1.00
v/c Ratio	0.95	0.66	0.41	0.59	1.17	0.75	0.84	0.89		0.95	0.55	0.30
Control Delay	83.8	37.4	11.7	82.3	129.5	28.8	85.8	74.0		88.5	51.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	83.8	37.4	11.7	82.3	129.5	28.8	85.8	74.0		88.5	51.2	0.5
LOS	F	D	B	F	F	C	F	E		F	D	A
Approach Delay		48.2			100.2			78.0			48.0	
Approach LOS		D			F			E			D	
Queue Length 50th (m)	99.6	127.3	21.1	24.8	~238.3	66.7	45.2	87.1		82.8	66.6	0.0
Queue Length 95th (m)	#137.9	158.7	49.4	42.7	#283.2	114.3	#67.8	#117.1		#119.4	85.6	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	663	1474	791	179	1059	651	351	651		548	869	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.95	0.66	0.41	0.46	1.17	0.75	0.81	0.86		0.95	0.54	0.30

Intersection Summary

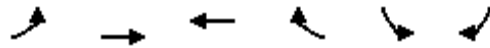
Area Type: Other
 Cycle Length: 147.4
 Actuated Cycle Length: 146.1
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.17
 Intersection Signal Delay: 67.8 Intersection LOS: E
 Intersection Capacity Utilization 100.6% ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
215: Kingsway & Street A

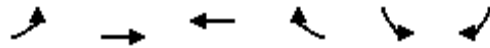
Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↖	↗↗	↖↖	↗	↖	↗
Volume (vph)	275	1170	1030	175	360	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0			100.0	0.0	0.0
Storage Lanes	2			1	1	1
Taper Length (m)	60.0			60.0	7.5	7.5
Lane Util. Factor	0.97	0.95	0.95	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	1770	1583
Fl _t Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				190		548
Link Speed (k/h)		80	80		50	
Link Distance (m)		514.2	612.8		214.8	
Travel Time (s)		23.1	27.6		15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	1272	1120	190	391	728
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	1272	1120	190	391	728
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		7.2	7.2		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Turn Type	Prot			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	11.0	23.9	30.9	30.9	28.6	28.6
Total Split (s)	34.0	37.9	37.9	37.9	35.6	35.6
Total Split (%)	31.6%	35.3%	35.3%	35.3%	33.1%	33.1%
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.9	5.9	5.9	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.9	7.9	7.9	5.6	5.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	None	None
Walk Time (s)			7.0	7.0	7.0	7.0
Flash Dont Walk (s)			16.0	16.0	16.0	16.0

Lanes, Volumes, Timings
215: Kingsway & Street A

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

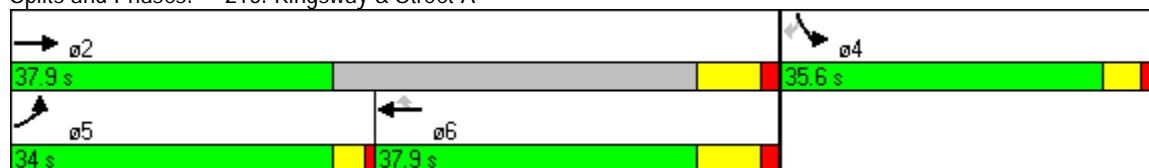


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Pedestrian Calls (#/hr)			0	0	0	0
Act Effect Green (s)	12.9	47.2	30.3	30.3	25.0	25.0
Actuated g/C Ratio	0.15	0.55	0.35	0.35	0.29	0.29
v/c Ratio	0.58	0.65	0.90	0.28	0.76	0.86
Control Delay	39.4	16.2	39.0	4.8	38.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	16.2	39.0	4.8	38.2	18.8
LOS	D	B	D	A	D	B
Approach Delay		20.7	34.1		25.6	
Approach LOS		C	C		C	
Queue Length 50th (m)	25.7	80.7	99.2	0.0	60.9	27.1
Queue Length 95th (m)	40.1	110.5	#158.7	14.9	98.9	#108.0
Internal Link Dist (m)		490.2	588.8		190.8	
Turn Bay Length (m)	150.0			100.0		
Base Capacity (vph)	1005	2209	1248	681	587	891
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	0.30	0.58	0.90	0.28	0.67	0.82

Intersection Summary






























Area Type: Other
 Cycle Length: 107.5
 Actuated Cycle Length: 85.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 26.4
 Intersection LOS: C
 Intersection Capacity Utilization 81.2%
 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: 215: Kingsway & Street A















Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 			 	
Volume (vph)	85	1180	260	80	815	40	105	25	125	135	95	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		100.0	20.0		0.0	0.0		0.0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (m)	60.0		65.0	95.0		60.0	20.0		7.5	7.5		7.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.875				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	3539	1583	1736	3438	1454	1805	1622	0	1805	1900	1615
Flt Permitted	0.950			0.141			0.692			0.656		
Satd. Flow (perm)	3502	3539	1583	258	3438	1454	1315	1622	0	1246	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			277			43		133				245
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	90	1255	277	85	867	43	112	27	133	144	101	303
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	1255	277	85	867	43	112	160	0	144	101	303
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	pm+pt		Perm	Perm			Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2	6		6	8			4		4
Detector Phase	5	2	2	1	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8		27.8	27.8	27.8
Total Split (s)	15.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8	0.0	27.8	27.8	27.8
Total Split (%)	18.6%	47.0%	47.0%	11.2%	47.0%	47.0%	34.4%	34.4%	0.0%	34.4%	34.4%	34.4%
Maximum Green (s)	11.0	30.0	30.0	5.0	30.0	30.0	21.0	21.0		21.0	21.0	21.0
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	3.2	3.2		3.2	3.2	3.2
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)	4.0	7.9	7.9	4.0	7.9	7.9	6.8	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	None

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		16.0	16.0		16.0	16.0	14.0	14.0		14.0	14.0	14.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	7.2	32.6	32.6	38.0	30.6	30.6	13.9	13.9		13.9	13.9	13.9
Actuated g/C Ratio	0.10	0.48	0.48	0.54	0.45	0.45	0.20	0.20		0.20	0.20	0.20
v/c Ratio	0.25	0.74	0.31	0.35	0.56	0.06	0.42	0.37		0.57	0.26	0.58
Control Delay	32.1	19.4	2.9	10.3	17.6	5.5	29.5	9.5		34.5	25.2	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	32.1	19.4	2.9	10.3	17.6	5.5	29.5	9.5		34.5	25.2	11.0
LOS	C	B	A	B	B	A	C	A		C	C	B
Approach Delay		17.3			16.5			17.7			19.8	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	5.9	71.1	0.0	3.7	45.4	0.0	13.6	3.1		18.1	11.8	6.7
Queue Length 95th (m)	13.5	115.6	13.1	10.7	78.5	6.1	28.4	17.4		35.9	24.7	27.5
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)	75.0		90.0	30.0		100.0	20.0					
Base Capacity (vph)	523	1788	937	246	1539	675	369	551		350	534	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.17	0.70	0.30	0.35	0.56	0.06	0.30	0.29		0.41	0.19	0.48

Intersection Summary





















Area Type:	Other
Cycle Length:	80.7
Actuated Cycle Length:	68.3
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	17.5
Intersection LOS:	B
Intersection Capacity Utilization	74.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 220: Kingsway & Levesque St.



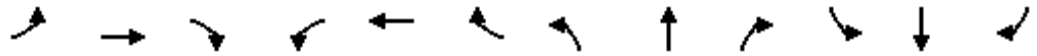
Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	480	385	85	15	285	160	30	70	15	200	90	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.96	0.99	0.99			0.99			0.99	0.95
Frt			0.850		0.946			0.983				0.850
Flt Protected	0.950			0.950				0.987			0.967	
Satd. Flow (prot)	1787	1881	1615	1805	1752	0	0	1835	0	0	1800	1583
Flt Permitted	0.222			0.528				0.797			0.760	
Satd. Flow (perm)	417	1881	1550	991	1752	0	0	1475	0	0	1401	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88		39			9				242
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	0%	0%	2%	1%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	495	397	88	15	294	165	31	72	15	206	93	330
Shared Lane Traffic (%)												
Lane Group Flow (vph)	495	397	88	15	459	0	0	118	0	0	299	330
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	5	2			6			8				4
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		4	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		25.7	25.7	25.7
Total Split (s)	20.0	31.7	31.7	31.7	31.7	0.0	25.7	25.7	0.0	25.7	25.7	25.7
Total Split (%)	25.8%	41.0%	41.0%	41.0%	41.0%	0.0%	33.2%	33.2%	0.0%	33.2%	33.2%	33.2%
Maximum Green (s)	16.0	26.0	26.0	26.0	26.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		3.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Weekday PM peak hour
Total future volumes; signal adjustments (with Maley Drive)

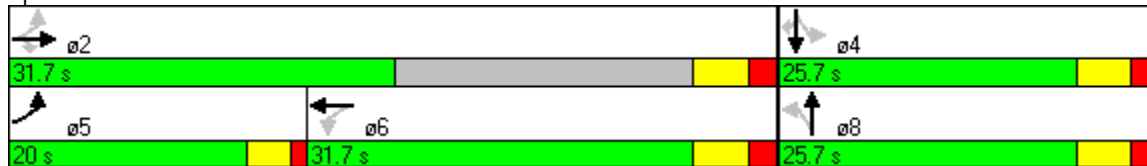


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0		0	0	0
Act Effect Green (s)	45.6	43.9	43.9	23.8	23.8			18.6			18.6	18.6
Actuated g/C Ratio	0.62	0.59	0.59	0.32	0.32			0.25			0.25	0.25
v/c Ratio	0.89	0.36	0.09	0.05	0.78			0.31			0.85	0.59
Control Delay	34.0	9.1	2.0	18.0	31.5			23.8			50.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	34.0	9.1	2.0	18.0	31.5			23.8			50.5	12.2
LOS	C	A	A	B	C			C			D	B
Approach Delay		21.0			31.1			23.8			30.4	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	43.6	28.4	0.0	1.5	56.7			13.5			43.4	10.7
Queue Length 95th (m)	#102.6	44.9	5.1	5.5	#96.1			27.6			#85.9	35.4
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	555	1139	973	339	625			399			373	579
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.89	0.35	0.09	0.04	0.73			0.30			0.80	0.57

Intersection Summary

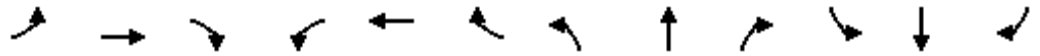
Area Type: Other
 Cycle Length: 77.4
 Actuated Cycle Length: 73.9
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 26.0
 Intersection LOS: C
 Intersection Capacity Utilization 86.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

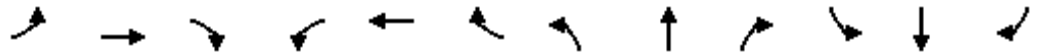
Friday pre-game hour
 Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	345	205	215	380	100	210	230	220	140	360	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.969				0.850		0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3375	0	1787	3539	1568	1770	3415	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3375	0	1787	3539	1568	1770	3415	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223		29				239		27	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
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
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	136	375	223	234	413	109	228	250	239	152	391	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	375	223	234	522	0	228	250	239	152	494	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	35.7	35.7	25.0	35.7	0.0	20.0	30.7	30.7	20.0	30.7	0.0
Total Split (%)	22.4%	32.0%	32.0%	22.4%	32.0%	0.0%	18.0%	27.6%	27.6%	18.0%	27.6%	0.0%
Maximum Green (s)	20.0	30.0	30.0	20.0	30.0		15.0	25.0	25.0	15.0	25.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
 Future background volumes (with Maley Drive)

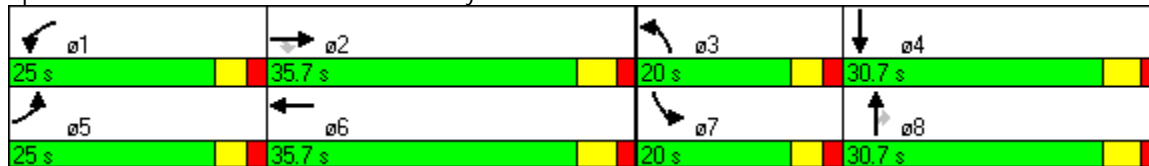


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	12.8	30.2	30.2	17.0	34.4		15.0	22.0	22.0	12.6	19.6	
Actuated g/C Ratio	0.12	0.29	0.29	0.16	0.33		0.15	0.21	0.21	0.12	0.19	
v/c Ratio	0.62	0.36	0.36	0.79	0.46		0.88	0.33	0.46	0.70	0.74	
Control Delay	56.0	31.4	6.0	62.0	28.4		77.9	36.7	7.8	62.5	44.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	56.0	31.4	6.0	62.0	28.4		77.9	36.7	7.8	62.5	44.5	
LOS	E	C	A	E	C		E	D	A	E	D	
Approach Delay		28.3			38.8			40.1			48.8	
Approach LOS		C			D			D			D	
Queue Length 50th (m)	28.3	34.0	0.0	48.2	43.0		49.0	24.5	0.0	31.5	50.3	
Queue Length 95th (m)	48.7	51.3	18.7	#85.3	67.9		#101.1	37.4	20.5	#56.3	69.5	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	321	1033	620	337	1143		261	835	522	252	809	
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	0.42	0.36	0.36	0.69	0.46		0.87	0.30	0.46	0.60	0.61	

Intersection Summary

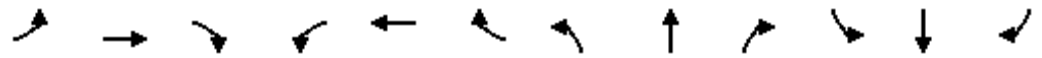
Area Type: Other
 Cycle Length: 111.4
 Actuated Cycle Length: 103.3
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 38.7
 Intersection LOS: D
 Intersection Capacity Utilization 83.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



Lanes, Volumes, Timings
105: Lasalle Blvd. & Falconbridge Rd.

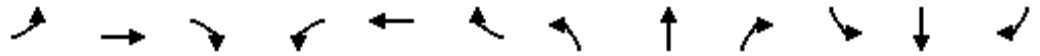
Friday pre-game hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	190	60	205	90	120	50	240	585	50	10	350	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	40.0		0.0	55.0		0.0	40.0		30.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	15.0		7.5	40.0		7.5	70.0		7.5	20.0		30.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Fr _t			0.850		0.956			0.988				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1727	1509	1719	1776	0	1736	3449	0	1444	3505	1568
Fl _t Permitted	0.471			0.715			0.407			0.389		
Satd. Flow (perm)	877	1727	1509	1294	1776	0	744	3449	0	591	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223		15			11				141
Link Speed (k/h)		50			50			50				50
Link Distance (m)		226.4			295.5			253.8				227.6
Travel Time (s)		16.3			21.3			18.3				16.4
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
Heavy Vehicles (%)	2%	10%	7%	5%	2%	3%	4%	2%	20%	25%	3%	3%
Adj. Flow (vph)	207	65	223	98	130	54	261	636	54	11	380	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	65	223	98	184	0	261	690	0	11	380	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		pm+pt		Perm		Perm		Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4		3	8		5	2		6	6	6
Switch Phase	8											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		7.0	20.0		20.0	20.0	20.0
Minimum Split (s)	11.0	35.4	35.4	11.0	38.4		11.0	33.8		33.8	33.8	33.8
Total Split (s)	22.0	28.4	28.4	16.0	28.4	0.0	22.0	46.8	0.0	46.8	46.8	46.8
Total Split (%)	18.5%	23.8%	23.8%	13.4%	23.8%	0.0%	18.5%	39.3%	0.0%	39.3%	39.3%	39.3%
Maximum Green (s)	18.0	22.0	22.0	12.0	22.0		18.0	40.0		40.0	40.0	40.0
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	4.2		4.2	4.2	4.2
All-Red Time (s)	1.0	2.7	2.7	1.0	2.7		1.0	2.6		2.6	2.6	2.6
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)	4.0	6.4	6.4	4.0	6.4	4.0	4.0	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.5	3.5	2.5	3.5		2.5	4.5		4.5	4.5	4.5
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)		7.0	7.0		7.0			7.0		7.0	7.0	7.0

Lanes, Volumes, Timings
105: Lasalle Blvd. & Falconbridge Rd.

Friday pre-game hour
Future background volumes (with Maley Drive)

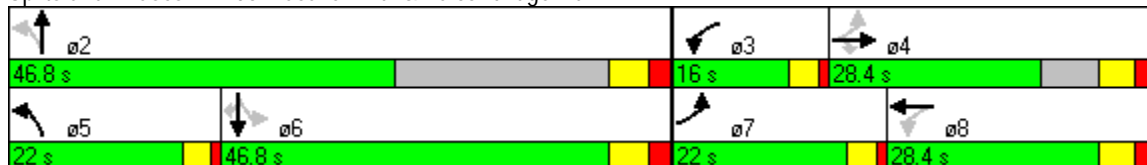


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		25.0			20.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effect Green (s)	36.6	24.0	24.0	27.2	16.5		42.8	40.0		20.7	20.7	20.7
Actuated g/C Ratio	0.42	0.27	0.27	0.30	0.19		0.49	0.46		0.24	0.24	0.24
v/c Ratio	0.41	0.14	0.39	0.23	0.53		0.49	0.44		0.08	0.46	0.29
Control Delay	19.9	28.0	6.2	18.5	37.0		17.2	17.1		30.9	31.6	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	19.9	28.0	6.2	18.5	37.0		17.2	17.1		30.9	31.6	7.4
LOS	B	C	A	B	D		B	B		C	C	A
Approach Delay		14.8			30.6			17.2			25.2	
Approach LOS		B			C			B			C	
Queue Length 50th (m)	23.5	9.0	0.0	10.4	27.1		24.2	37.7		1.5	29.2	0.0
Queue Length 95th (m)	42.2	21.0	17.7	21.6	53.0		50.3	64.8		6.8	50.5	15.4
Internal Link Dist (m)		202.4			271.5			229.8			203.6	
Turn Bay Length (m)	90.0			40.0			55.0			40.0		30.0
Base Capacity (vph)	525	555	577	484	435		552	1963		222	1318	678
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	0.39	0.12	0.39	0.20	0.42		0.47	0.35		0.05	0.29	0.21

Intersection Summary

























Area Type: Other
 Cycle Length: 119.2
 Actuated Cycle Length: 87.4
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 20.2
 Intersection LOS: C
 Intersection Capacity Utilization 74.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 105: Lasalle Blvd. & Falconbridge Rd.



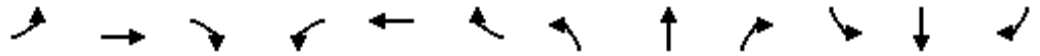
Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	495	645	70	100	480	335	80	255	120	370	270	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			76			327						408
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		549.9			473.7			387.7			377.3	
Travel Time (s)		39.6			34.1			27.9			27.2	
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
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	538	701	76	109	522	364	87	277	130	402	293	408
Shared Lane Traffic (%)												
Lane Group Flow (vph)	538	701	76	109	522	364	87	277	130	402	293	408
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	34.1	10.4	34.1	
Total Split (s)	44.4	48.4	48.4	19.4	46.4	46.4	22.4	26.1	26.1	22.4	26.1	0.0
Total Split (%)	31.9%	34.7%	34.7%	13.9%	33.3%	33.3%	16.1%	18.7%	18.7%	16.1%	18.7%	0.0%
Maximum Green (s)	39.0	42.0	42.0	14.0	40.0	40.0	17.0	20.0	20.0	17.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	6.1	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	2.5	3.5	3.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Future background volumes (with Maley Drive)

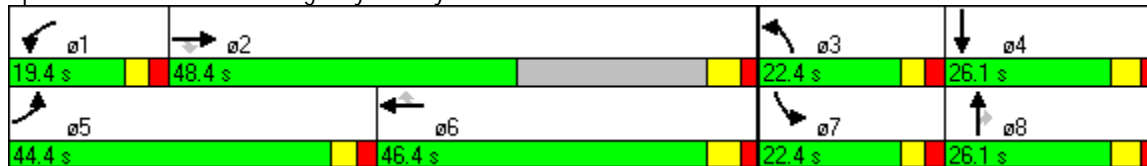


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0	21.0		21.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effect Green (s)	20.9	33.2	33.2	10.8	23.2	23.2	7.6	14.4	14.4	16.6	26.2	98.9
Actuated g/C Ratio	0.21	0.34	0.34	0.11	0.23	0.23	0.08	0.15	0.15	0.17	0.26	1.00
v/c Ratio	0.73	0.59	0.13	0.56	0.64	0.59	0.33	0.54	0.55	0.69	0.31	0.26
Control Delay	43.9	29.8	6.2	56.2	38.8	10.1	50.4	44.9	51.2	47.9	33.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	29.8	6.2	56.2	38.8	10.1	50.4	44.9	51.2	47.9	33.5	0.4
LOS	D	C	A	E	D	B	D	D	D	D	C	A
Approach Delay		34.2			30.2			47.5			26.5	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	52.1	60.9	0.0	20.9	49.6	5.8	8.6	27.4	24.5	39.1	25.5	0.0
Queue Length 95th (m)	81.8	88.6	10.0	45.6	78.2	35.0	19.2	47.7	50.5	#74.8	46.4	0.0
Internal Link Dist (m)		525.9			449.7			363.7			353.3	
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	1166	1771	593	249	1222	621	544	687	314	604	947	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.40	0.13	0.44	0.43	0.59	0.16	0.40	0.41	0.67	0.31	0.26

Intersection Summary

























Area Type: Other
 Cycle Length: 139.3
 Actuated Cycle Length: 98.9
 Natural Cycle: 105
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 32.7
 Intersection LOS: C
 Intersection Capacity Utilization 64.4%
 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: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	500	235	60	335	235	210	345	70	340	340	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258			258		17				390
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	3%	2%	4%	3%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	511	549	258	66	368	258	231	379	77	374	374	390
Shared Lane Traffic (%)												
Lane Group Flow (vph)	511	549	258	66	368	258	231	456	0	374	374	390
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	30.0	40.7	40.7	20.0	35.7	35.7	20.0	35.7	0.0	25.0	35.7	0.0
Total Split (%)	23.7%	32.2%	32.2%	15.8%	28.2%	28.2%	15.8%	28.2%	0.0%	19.8%	28.2%	0.0%
Maximum Green (s)	25.0	34.0	34.0	15.0	29.0	29.0	15.0	29.0		20.0	29.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0				7.0

Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Friday pre-game hour
Future background volumes (with Maley Drive)

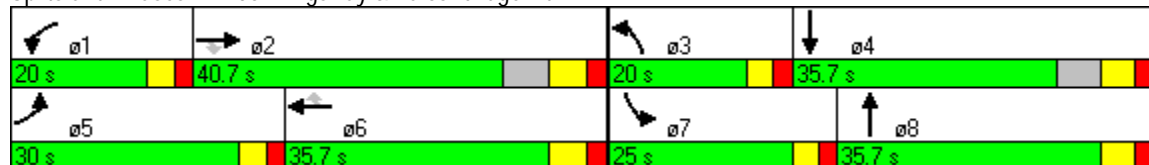


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		18.0	18.0		20.0			19.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	19.7	34.6	34.6	8.9	21.2	21.2	11.6	18.8		15.5	22.8	99.1
Actuated g/C Ratio	0.20	0.35	0.35	0.09	0.21	0.21	0.12	0.19		0.16	0.23	1.00
v/c Ratio	0.76	0.45	0.36	0.43	0.49	0.47	0.57	0.67		0.69	0.45	0.24
Control Delay	46.8	28.9	5.2	54.9	38.8	8.0	49.2	42.1		47.9	35.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	46.8	28.9	5.2	54.9	38.8	8.0	49.2	42.1		47.9	35.3	0.4
LOS	D	C	A	D	D	A	D	D		D	D	A
Approach Delay		31.2			28.8			44.5			27.5	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	49.5	46.1	0.0	12.7	34.5	0.0	22.7	43.1		36.5	33.7	0.0
Queue Length 95th (m)	80.7	76.7	19.2	30.0	58.6	22.4	41.3	69.2		61.7	55.1	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	814	1337	721	245	961	545	513	946		677	1111	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.41	0.36	0.27	0.38	0.47	0.45	0.48		0.55	0.34	0.24

Intersection Summary

Area Type: Other
 Cycle Length: 126.4
 Actuated Cycle Length: 99.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 32.0
 Intersection LOS: C
 Intersection Capacity Utilization 70.9%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.













Friday pre-game hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	560	45	10	490	0	40	0	15	0	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	3.0	3.6	3.0	3.0
Storage Length (m)	100.0		90.0	30.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (m)	100.0		75.0	40.0		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1504	3505	1615	1805	3505	0	0	1685	1507	0	1773	1507
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1504	3505	1615	1805	3505	0	0	1342	1507	0	1773	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47						16			434
Link Speed (k/h)		60			80			50				50
Link Distance (m)		974.0			667.8			260.4				172.8
Travel Time (s)		58.4			30.1			18.7				12.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	589	47	11	516	0	42	0	16	0	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	589	47	11	516	0	0	42	16	0	0	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm		Perm	Perm	Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2				8		8	4		4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	10.0	37.1	37.1	10.0	37.1		33.5	33.5	33.5	33.5	33.5	33.5
Total Split (s)	15.0	57.1	57.1	17.0	57.1	0.0	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	15.1%	57.3%	57.3%	17.1%	57.3%	0.0%	25.6%	25.6%	25.6%	25.6%	25.6%	25.6%
Maximum Green (s)	10.0	50.0	50.0	12.0	50.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	5.1	5.1	3.0	5.1		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.2	2.2	2.2	2.2	2.2	2.2
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)	5.0	7.1	7.1	5.0	7.1	4.0	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0		3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None

Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		15.0	15.0		15.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	0
Act Effect Green (s)	6.5	56.6	56.6	6.6	56.7			10.0	10.0			10.0
Actuated g/C Ratio	0.08	0.73	0.73	0.08	0.73			0.12	0.12			0.12
v/c Ratio	0.04	0.23	0.04	0.08	0.20			0.26	0.08			0.01
Control Delay	26.8	5.6	3.0	27.1	5.5			25.1	12.1			0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0			0.0
Total Delay	26.8	5.6	3.0	27.1	5.5			25.1	12.1			0.0
LOS	C	A	A	C	A			C	B			A
Approach Delay		5.6			5.9			21.5				
Approach LOS		A			A			C				
Queue Length 50th (m)	0.5	12.1	0.0	1.0	10.3			3.5	0.0			0.0
Queue Length 95th (m)	3.4	34.4	4.7	5.6	29.6			12.9	4.8			0.0
Internal Link Dist (m)		950.0			643.8			236.4			148.8	
Turn Bay Length (m)	100.0		90.0	30.0								
Base Capacity (vph)	184	2809	1304	258	2828			323	374			692
Starvation Cap Reductn	0	0	0	0	0			0	0			0
Spillback Cap Reductn	0	0	0	0	0			0	0			0
Storage Cap Reductn	0	0	0	0	0			0	0			0
Reduced v/c Ratio	0.03	0.21	0.04	0.04	0.18			0.13	0.04			0.01

Intersection Summary























Area Type:	Other
Cycle Length:	99.6
Actuated Cycle Length:	77.6
Natural Cycle:	85
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.26
Intersection Signal Delay:	6.5
Intersection LOS:	A
Intersection Capacity Utilization:	53.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 210: Kingsway & 3rd Ave.















Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	465	100	55	405	0	80	0	75	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		0.1	20.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	60.0		65.0	95.0		35.0	20.0		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.850				
Flt Protected				0.950			0.950					
Satd. Flow (prot)	1900	3539	1583	1736	3438	0	1805	1568	0	1900	1900	0
Flt Permitted				0.424			0.757					
Satd. Flow (perm)	1900	3539	1583	775	3438	0	1438	1568	0	1900	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110					333				
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	0	511	110	60	445	0	88	0	82	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	110	60	445	0	88	82	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm		Perm	pm+pt			Perm			Perm		
Protected Phases		2		1	6			8				4
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	5.0	30.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	37.9	37.9	37.9	9.0	37.9		27.8	27.8		27.8	27.8	
Total Split (s)	37.9	37.9	37.9	9.0	37.9	0.0	27.8	27.8	0.0	27.8	27.8	0.0
Total Split (%)	50.7%	50.7%	50.7%	12.0%	50.7%	0.0%	37.2%	37.2%	0.0%	37.2%	37.2%	0.0%
Maximum Green (s)	30.0	30.0	30.0	5.0	30.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	5.9	5.9	5.9	3.0	5.9		3.6	3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0		3.2	3.2		3.2	3.2	
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)	7.9	7.9	7.9	4.0	7.9	4.0	6.8	6.8	4.0	6.8	6.8	4.0
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0	5.0	2.5	5.0		3.5	3.5		3.5	3.5	
Recall Mode	Min	Min	Min	None	Min		None	None		None	None	

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

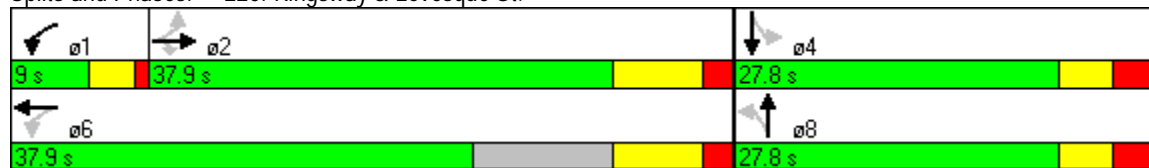
Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0	7.0		7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	16.0	16.0	16.0		16.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0	0		0		0	0		0	0	
Act Effct Green (s)		43.5	43.5	52.9	49.6		11.3	11.3				
Actuated g/C Ratio		0.59	0.59	0.69	0.67		0.15	0.15				
v/c Ratio		0.24	0.11	0.10	0.19		0.42	0.16				
Control Delay		9.4	2.8	4.6	5.6		29.5	0.7				
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0				
Total Delay		9.4	2.8	4.6	5.6		29.5	0.7				
LOS		A	A	A	A		C	A				
Approach Delay		8.2			5.5			15.6				
Approach LOS		A			A			B				
Queue Length 50th (m)		19.1	0.0	2.0	10.9		10.0	0.0				
Queue Length 95th (m)		32.1	7.6	6.1	20.0		22.0	0.0				
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)			90.0	30.0			20.0					
Base Capacity (vph)		2089	980	598	2358		375	655				
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		0.24	0.11	0.10	0.19		0.23	0.13				

Intersection Summary























Area Type:	Other
Cycle Length:	74.7
Actuated Cycle Length:	73.6
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization:	64.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 220: Kingsway & Levesque St.



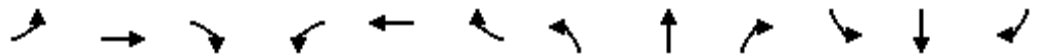
Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Friday pre-game hour
Future background volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	460	75	20	400	5	45	0	15	5	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		20.0	50.0		75.0	20.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	100.0		40.0	100.0		95.0	30.0		7.5	15.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850		0.850			0.850	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3505	1599	1736	3438	1615	1805	1615	0	1612	1468	0
Fl _t Permitted	0.950			0.950			0.746			0.746		
Satd. Flow (perm)	1687	3505	1599	1736	3438	1615	1417	1615	0	1266	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			6		440			469	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		457.8			1178.3			983.3			168.8	
Travel Time (s)		20.6			53.0			70.8			12.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	7%	3%	1%	4%	5%	0%	0%	0%	0%	12%	0%	10%
Adj. Flow (vph)	6	541	88	24	471	6	53	0	18	6	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	541	88	24	471	6	53	18	0	6	18	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	37.9	37.9	10.0	37.9	37.9	30.7	30.7		30.7	30.7	
Total Split (s)	23.0	67.9	67.9	20.0	67.9	67.9	31.7	31.7	0.0	31.7	31.7	0.0
Total Split (%)	18.8%	55.4%	55.4%	16.3%	55.4%	55.4%	25.9%	25.9%	0.0%	25.9%	25.9%	0.0%
Maximum Green (s)	18.0	60.0	60.0	15.0	60.0	60.0	25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	4.1	4.1		4.1	4.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6		2.6	2.6	
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)	5.0	7.9	7.9	5.0	7.9	7.9	6.7	6.7	4.0	6.7	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	4.0	4.0		4.0	4.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	

Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Friday pre-game hour
Future background volumes (with Maley Drive)

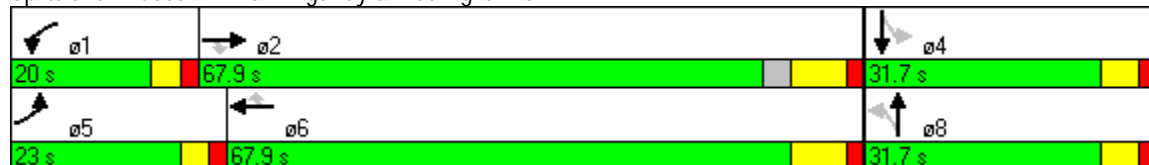


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	17.0	17.0		17.0	17.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	6.3	49.7	49.7	7.0	50.0	50.0	10.4	10.4		10.4	10.4	
Actuated g/C Ratio	0.08	0.71	0.71	0.09	0.71	0.71	0.14	0.14		0.14	0.14	
v/c Ratio	0.04	0.22	0.08	0.15	0.19	0.01	0.27	0.03		0.03	0.03	
Control Delay	28.6	6.7	3.9	29.4	6.4	5.8	25.7	0.1		22.2	0.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	28.6	6.7	3.9	29.4	6.4	5.8	25.7	0.1		22.2	0.1	
LOS	C	A	A	C	A	A	C	A		C	A	
Approach Delay		6.6			7.5			19.2				5.6
Approach LOS		A			A			B				A
Queue Length 50th (m)	0.6	12.9	0.9	2.2	11.0	0.0	4.7	0.0		0.5	0.0	
Queue Length 95th (m)	3.8	33.0	8.2	8.9	27.7	1.7	14.8	0.0		3.5	0.0	
Internal Link Dist (m)		433.8			1154.3			959.3				144.8
Turn Bay Length (m)	30.0		20.0	50.0		75.0	20.0			20.0		
Base Capacity (vph)	355	2854	1314	318	2783	1309	419	788		375	765	
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	0.02	0.19	0.07	0.08	0.17	0.00	0.13	0.02		0.02	0.02	

Intersection Summary

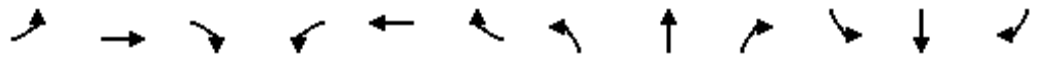
Area Type: Other
 Cycle Length: 122.6
 Actuated Cycle Length: 70
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.27
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization 52.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 225: Kingsway & Moonlight Ave.



Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

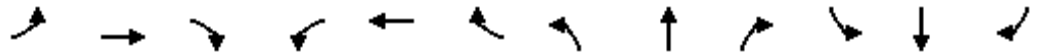
Friday pre-game hour
Future background volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	270	65	10	155	125	25	55	10	150	70	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.96	0.98	0.99			0.99			0.99	0.95
Frt			0.850		0.933			0.986				0.850
Flt Protected	0.950			0.950				0.986			0.967	
Satd. Flow (prot)	1736	1827	1615	1805	1682	0	0	1839	0	0	1801	1583
Flt Permitted	0.344			0.557				0.821			0.668	
Satd. Flow (perm)	626	1827	1543	1042	1682	0	0	1522	0	0	1231	1498
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81		55			6				216
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	4%	4%	0%	0%	5%	3%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	475	338	81	12	194	156	31	69	12	188	88	319
Shared Lane Traffic (%)												
Lane Group Flow (vph)	475	338	81	12	350	0	0	112	0	0	276	319
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	16.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	5.0	25.7	25.7
Total Split (%)	17.3%	49.5%	49.5%	49.5%	49.5%	0.0%	27.8%	27.8%	0.0%	5.4%	27.8%	27.8%
Maximum Green (s)	12.0	40.0	40.0	40.0	40.0		20.0	20.0		1.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Future background volumes (with Maley Drive)

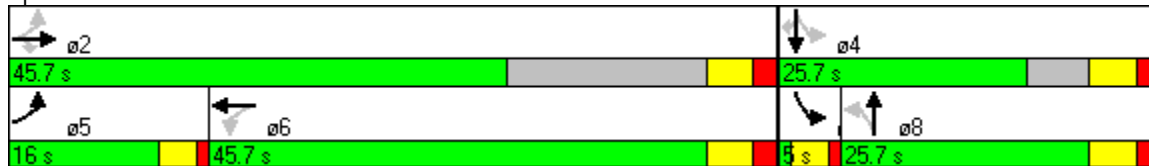


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effect Green (s)	39.6	37.9	37.9	21.8	21.8			13.6			18.7	18.7
Actuated g/C Ratio	0.58	0.56	0.56	0.32	0.32			0.19			0.28	0.28
v/c Ratio	0.85	0.33	0.09	0.04	0.61			0.38			0.76	0.56
Control Delay	26.1	9.5	2.2	16.3	21.6			26.9			39.6	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	26.1	9.5	2.2	16.3	21.6			26.9			39.6	11.9
LOS	C	A	A	B	C			C			D	B
Approach Delay		17.7			21.4			26.9			24.7	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	34.5	23.5	0.0	1.1	33.4			11.8			32.7	10.2
Queue Length 95th (m)	#50.2	32.6	3.9	3.9	48.6			24.6			#66.0	26.7
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	561	1189	1032	484	812			401			470	649
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.85	0.28	0.08	0.02	0.43			0.28			0.59	0.49

Intersection Summary
























Area Type: Other
 Cycle Length: 92.4
 Actuated Cycle Length: 68
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 21.0
 Intersection LOS: C
 Intersection Capacity Utilization 69.8%
 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: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	345	205	215	380	100	210	230	220	140	360	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.969				0.850		0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3414	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3414	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223		28				239		26	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
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
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	136	375	223	234	413	109	228	250	239	152	391	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	375	223	234	522	0	228	250	239	152	494	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	35.7	35.7	25.0	35.7	0.0	25.0	30.7	30.7	20.0	28.7	0.0
Total Split (%)	21.9%	31.2%	31.2%	21.9%	31.2%	0.0%	21.9%	26.8%	26.8%	17.5%	25.1%	0.0%
Maximum Green (s)	20.0	30.0	30.0	20.0	30.0		20.0	25.0	25.0	15.0	23.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
 Future background volumes; signal adjustments (with Maley Drive)

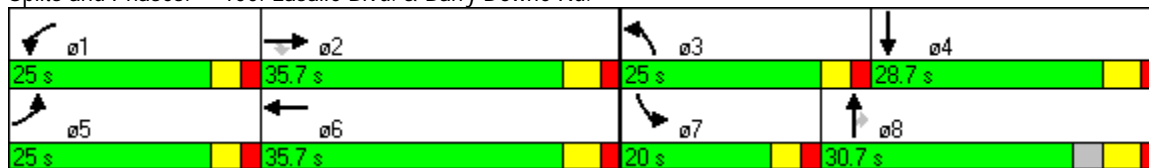


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	13.1	30.3	30.3	17.3	34.6		17.1	23.8	23.8	12.7	19.5	
Actuated g/C Ratio	0.12	0.29	0.29	0.16	0.33		0.16	0.22	0.22	0.12	0.18	
v/c Ratio	0.62	0.37	0.36	0.80	0.47		0.79	0.31	0.44	0.71	0.76	
Control Delay	57.9	33.2	6.3	64.3	30.2		63.9	35.8	7.3	65.2	47.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	57.9	33.2	6.3	64.3	30.2		63.9	35.8	7.3	65.2	47.6	
LOS	E	C	A	E	C		E	D	A	E	D	
Approach Delay		29.6			40.7			35.2			51.7	
Approach LOS		C			D			D			D	
Queue Length 50th (m)	30.1	37.0	0.0	51.3	46.8		50.0	25.0	0.0	33.6	53.8	
Queue Length 95th (m)	50.0	53.2	19.0	#89.3	70.7		#85.3	37.2	20.1	#60.4	73.6	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	316	1014	613	331	1121		330	906	538	247	743	
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	0.43	0.37	0.36	0.71	0.47		0.69	0.28	0.44	0.62	0.66	

Intersection Summary
































Area Type: Other
 Cycle Length: 114.4
 Actuated Cycle Length: 105.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 39.0
 Intersection LOS: D
 Intersection Capacity Utilization 83.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



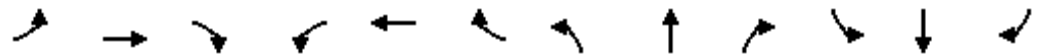
Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (vph)	495	645	70	100	480	335	80	255	120	370	270	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			76			335						408
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		549.9			473.7			387.7			377.3	
Travel Time (s)		39.6			34.1			27.9			27.2	
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
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	538	701	76	109	522	364	87	277	130	402	293	408
Shared Lane Traffic (%)												
Lane Group Flow (vph)	538	701	76	109	522	364	87	277	130	402	293	408
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2		7.2		7.2
Link Offset(m)		0.0			0.0			0.0		0.0		0.0
Crosswalk Width(m)		4.8			4.8			4.8		4.8		4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	39.4	46.4	46.4	29.4	46.4	46.4	22.4	26.1	29.4	25.4	26.1	0.0
Total Split (%)	28.7%	33.8%	33.8%	21.4%	33.8%	33.8%	16.3%	19.0%	21.4%	18.5%	19.0%	0.0%
Maximum Green (s)	34.0	40.0	40.0	24.0	40.0	40.0	17.0	20.0	24.0	20.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)

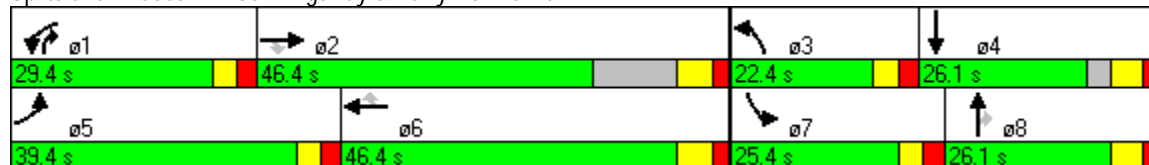


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0				21.0
Pedestrian Calls (#/hr)		0	0		0	0		0				0
Act Effect Green (s)	20.7	31.1	31.1	11.3	21.7	21.7	7.6	14.0	31.6	16.6	25.9	97.0
Actuated g/C Ratio	0.21	0.32	0.32	0.12	0.22	0.22	0.08	0.14	0.33	0.17	0.27	1.00
v/c Ratio	0.73	0.62	0.13	0.52	0.67	0.59	0.32	0.54	0.25	0.68	0.31	0.26
Control Delay	43.1	31.4	6.9	52.9	40.1	9.9	50.0	44.9	27.1	46.1	32.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	31.4	6.9	52.9	40.1	9.9	50.0	44.9	27.1	46.1	32.5	0.4
LOS	D	C	A	D	D	A	D	D	C	D	C	A
Approach Delay		34.8			30.5			41.1				25.6
Approach LOS		C			C			D				C
Queue Length 50th (m)	50.6	60.9	0.0	20.3	49.4	4.5	8.4	26.7	18.5	38.0	24.8	0.0
Queue Length 95th (m)	82.4	95.2	10.7	44.5	80.2	33.6	19.4	48.4	39.0	67.4	45.6	0.0
Internal Link Dist (m)		525.9			449.7			363.7				353.3
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	1083	1541	569	398	1231	614	555	701	576	703	971	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.45	0.13	0.27	0.42	0.59	0.16	0.40	0.23	0.57	0.30	0.26

Intersection Summary

























Area Type: Other
 Cycle Length: 137.3
 Actuated Cycle Length: 97
 Natural Cycle: 105
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 31.9
 Intersection LOS: C
 Intersection Capacity Utilization 64.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 200: Kingsway & Barry Downe Rd.



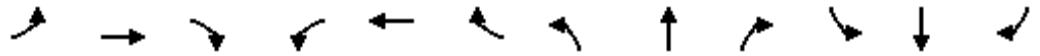
Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	500	235	60	335	235	210	345	70	340	340	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr't			0.850			0.850		0.975				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258			258		17				390
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	3%	2%	4%	3%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	511	549	258	66	368	258	231	379	77	374	374	390
Shared Lane Traffic (%)												
Lane Group Flow (vph)	511	549	258	66	368	258	231	456	0	374	374	390
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	30.7	30.7	20.0	31.7	31.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	25.9%	24.1%	24.1%	15.7%	24.9%	24.9%	15.7%	26.5%	0.0%	22.8%	25.7%	0.0%
Maximum Green (s)	28.0	24.0	24.0	15.0	25.0	25.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0				7.0

Lanes, Volumes, Timings
 205: Kingsway & Falconbridge Rd.

Friday pre-game hour
 Future background volumes; signal adjustments (with Maley Drive)

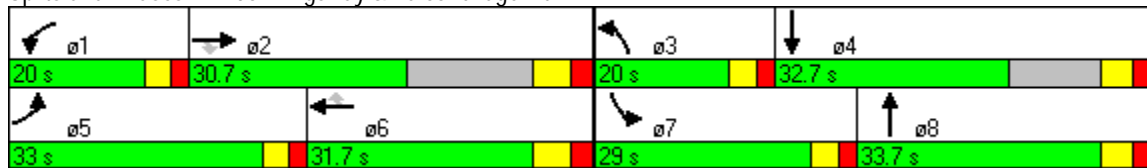


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		18.0	18.0		20.0			19.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	20.2	34.9	34.9	9.0	21.0	21.0	11.6	18.9		16.0	23.3	100.0
Actuated g/C Ratio	0.20	0.35	0.35	0.09	0.21	0.21	0.12	0.19		0.16	0.23	1.00
v/c Ratio	0.75	0.45	0.36	0.43	0.50	0.48	0.58	0.68		0.67	0.45	0.24
Control Delay	46.1	29.4	5.3	55.7	40.0	8.4	50.0	42.8		47.3	35.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	46.1	29.4	5.3	55.7	40.0	8.4	50.0	42.8		47.3	35.2	0.4
LOS	D	C	A	E	D	A	D	D		D	D	A
Approach Delay		31.1			29.7			45.2			27.2	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	49.4	46.0	0.0	12.7	34.5	0.0	22.7	43.1		36.5	33.7	0.0
Queue Length 95th (m)	81.9	79.6	19.6	31.2	62.5	23.5	43.0	72.3		62.6	55.7	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	884	1314	720	243	854	539	510	893		780	1153	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.58	0.42	0.36	0.27	0.43	0.48	0.45	0.51		0.48	0.32	0.24

Intersection Summary

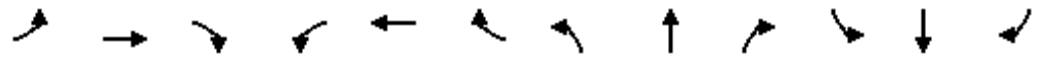
Area Type: Other
 Cycle Length: 127.4
 Actuated Cycle Length: 100
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 32.2
 Intersection LOS: C
 Intersection Capacity Utilization 70.9%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

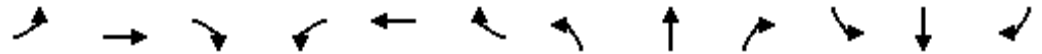
Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	270	65	10	155	125	25	55	10	150	70	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95	0.98	0.99			0.99			0.99	0.94
Frt			0.850		0.933			0.986				0.850
Flt Protected	0.950			0.950				0.986			0.967	
Satd. Flow (prot)	1736	1827	1615	1805	1682	0	0	1839	0	0	1801	1583
Flt Permitted	0.325			0.557				0.812			0.622	
Satd. Flow (perm)	592	1827	1539	1040	1682	0	0	1503	0	0	1146	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81		46			5				192
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	4%	4%	0%	0%	5%	3%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	450	338	81	12	194	156	31	69	12	188	88	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	450	338	81	12	350	0	0	112	0	0	276	300
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	20.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	11.0	25.7	25.7
Total Split (%)	19.5%	44.6%	44.6%	44.6%	44.6%	0.0%	25.1%	25.1%	0.0%	10.7%	25.1%	25.1%
Maximum Green (s)	16.0	40.0	40.0	40.0	40.0		20.0	20.0		7.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Future background volumes; signal adjustments (with Maley Drive)

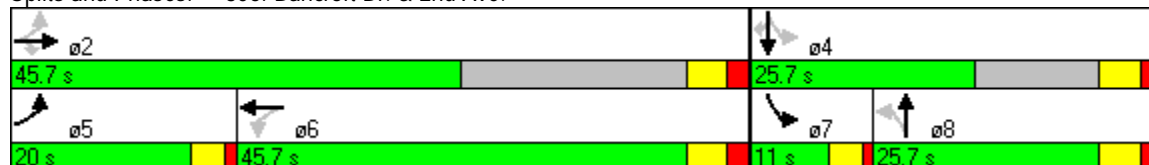


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effct Green (s)	44.9	43.2	43.2	23.2	23.2			11.4			20.7	20.7
Actuated g/C Ratio	0.59	0.57	0.57	0.31	0.31			0.15			0.27	0.27
v/c Ratio	0.76	0.32	0.09	0.04	0.64			0.50			0.74	0.55
Control Delay	19.8	10.3	2.5	20.0	26.2			38.0			37.8	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	19.8	10.3	2.5	20.0	26.2			38.0			37.8	13.1
LOS	B	B	A	B	C			D			D	B
Approach Delay		14.5			26.0			38.0			24.9	
Approach LOS		B			C			D			C	
Queue Length 50th (m)	34.6	25.2	0.0	1.3	39.6			14.6			33.3	11.9
Queue Length 95th (m)	54.0	40.3	4.4	4.7	61.0			29.7			56.8	29.3
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	595	1189	1030	453	758			351			604	665
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.76	0.28	0.08	0.03	0.46			0.32			0.46	0.45

Intersection Summary
























Area Type:	Other
Cycle Length:	102.4
Actuated Cycle Length:	75.5
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	21.2
Intersection LOS:	C
Intersection Capacity Utilization:	68.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 305: Bancroft Dr. & 2nd Ave.



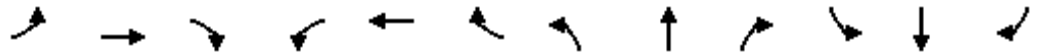
Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	345	385	215	380	100	240	245	220	140	435	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.969				0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3435	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3435	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			360		28				239		20	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
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
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	136	375	418	234	413	109	261	266	239	152	473	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	375	418	234	522	0	261	266	239	152	576	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	35.7	35.7	25.0	35.7	0.0	25.0	30.7	30.7	20.0	28.7	0.0
Total Split (%)	21.9%	31.2%	31.2%	21.9%	31.2%	0.0%	21.9%	26.8%	26.8%	17.5%	25.1%	0.0%
Maximum Green (s)	20.0	30.0	30.0	20.0	30.0		20.0	25.0	25.0	15.0	23.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
 Total future volumes (with Maley Drive)

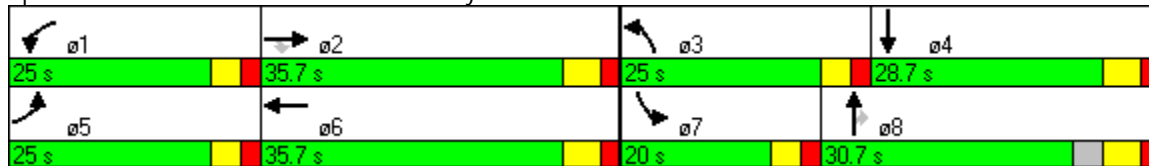


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	13.3	30.2	30.2	17.6	34.5		18.5	26.9	26.9	12.9	21.3	
Actuated g/C Ratio	0.12	0.28	0.28	0.16	0.32		0.17	0.25	0.25	0.12	0.20	
v/c Ratio	0.63	0.38	0.60	0.81	0.48		0.86	0.31	0.42	0.72	0.84	
Control Delay	59.6	34.5	10.3	66.8	31.5		71.7	35.3	7.0	67.3	53.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	59.6	34.5	10.3	66.8	31.5		71.7	35.3	7.0	67.3	53.3	
LOS	E	C	B	E	C		E	D	A	E	D	
Approach Delay		27.3			42.4			38.9			56.2	
Approach LOS		C			D			D			E	
Queue Length 50th (m)	31.0	38.4	10.5	52.9	49.0		60.1	26.9	0.0	34.6	66.5	
Queue Length 95th (m)	50.0	53.2	42.2	#89.3	70.7		#104.5	39.4	20.1	#60.4	#89.6	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	306	979	698	321	1087		324	904	566	239	731	
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	0.44	0.38	0.60	0.73	0.48		0.81	0.29	0.42	0.64	0.79	

Intersection Summary
























Area Type: Other
 Cycle Length: 114.4
 Actuated Cycle Length: 109.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 40.3
 Intersection LOS: D
 Intersection Capacity Utilization 85.6%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



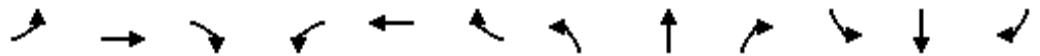
Lanes, Volumes, Timings
105: Lasalle Blvd. & Falconbridge Rd.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	190	60	215	105	120	50	240	600	55	10	595	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	40.0		0.0	55.0		0.0	40.0		30.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	15.0		7.5	40.0		7.5	70.0		7.5	20.0		30.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.956			0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1727	1509	1719	1776	0	1736	3442	0	1444	3505	1568
Flt Permitted	0.441			0.715			0.240			0.381		
Satd. Flow (perm)	821	1727	1509	1294	1776	0	438	3442	0	579	3505	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			234		15			11				89
Link Speed (k/h)		50			50			50				50
Link Distance (m)		226.4			295.5			253.8				227.6
Travel Time (s)		16.3			21.3			18.3				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92
Heavy Vehicles (%)	2%	10%	7%	5%	2%	3%	4%	2%	20%	25%	3%	3%
Adj. Flow (vph)	207	65	234	114	130	54	261	652	60	11	626	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	65	234	114	184	0	261	712	0	11	626	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		pm+pt		Perm		Perm		Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4		3	8		5	2		6	6	6
Switch Phase	8											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		7.0	20.0		20.0	20.0	20.0
Minimum Split (s)	11.0	35.4	35.4	11.0	38.4		11.0	33.8		33.8	33.8	33.8
Total Split (s)	32.0	21.4	21.4	16.0	21.4	0.0	22.0	36.8	0.0	36.8	36.8	36.8
Total Split (%)	28.5%	19.1%	19.1%	14.3%	19.1%	0.0%	19.6%	32.8%	0.0%	32.8%	32.8%	32.8%
Maximum Green (s)	28.0	15.0	15.0	12.0	15.0		18.0	30.0		30.0	30.0	30.0
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	4.2		4.2	4.2	4.2
All-Red Time (s)	1.0	2.7	2.7	1.0	2.7		1.0	2.6		2.6	2.6	2.6
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)	4.0	6.4	6.4	4.0	6.4	4.0	4.0	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.5	3.5	2.5	3.5		2.5	4.5		4.5	4.5	4.5
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)		7.0	7.0		7.0			7.0		7.0	7.0	7.0

Lanes, Volumes, Timings
 105: Lasalle Blvd. & Falconbridge Rd.

Friday pre-game hour
 Total future volumes (with Maley Drive)

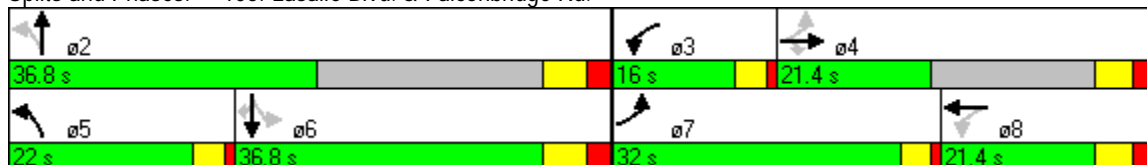


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		25.0			20.0		20.0	20.0	20.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effect Green (s)	34.9	22.0	22.0	26.0	14.6		46.2	43.3		24.2	24.2	24.2
Actuated g/C Ratio	0.39	0.25	0.25	0.28	0.16		0.52	0.48		0.27	0.27	0.27
v/c Ratio	0.44	0.15	0.43	0.28	0.61		0.59	0.42		0.07	0.66	0.29
Control Delay	23.1	32.2	7.3	21.8	44.1		18.4	15.7		28.1	33.5	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.1	32.2	7.3	21.8	44.1		18.4	15.7		28.1	33.5	13.3
LOS	C	C	A	C	D		B	B		C	C	B
Approach Delay		17.0			35.5			16.4			29.7	
Approach LOS		B			D			B			C	
Queue Length 50th (m)	25.6	9.7	0.0	13.3	28.8		25.3	41.1		1.5	54.1	7.3
Queue Length 95th (m)	47.6	23.3	19.9	27.8	#64.1		46.4	62.5		6.4	80.4	23.8
Internal Link Dist (m)		202.4			271.5			229.8			203.6	
Turn Bay Length (m)	90.0			40.0			55.0			40.0		30.0
Base Capacity (vph)	536	551	548	451	313		475	1839		184	1113	559
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	0.39	0.12	0.43	0.25	0.59		0.55	0.39		0.06	0.56	0.25

Intersection Summary





























Area Type: Other
 Cycle Length: 112.2
 Actuated Cycle Length: 89.3
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 22.8
 Intersection LOS: C
 Intersection Capacity Utilization 74.9%
 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: 105: Lasalle Blvd. & Falconbridge Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 		
Volume (vph)	495	1165	70	100	645	425	80	255	120	810	270	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			66			335						408
Link Speed (k/h)		50			50			50				50
Link Distance (m)		549.9			473.7			387.7				377.3
Travel Time (s)		39.6			34.1			27.9				27.2
Peak Hour Factor	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	538	1226	76	109	701	462	87	277	130	853	293	408
Shared Lane Traffic (%)												
Lane Group Flow (vph)	538	1226	76	109	701	462	87	277	130	853	293	408
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	39.4	46.4	46.4	29.4	46.4	46.4	22.4	26.1	29.4	25.4	26.1	0.0
Total Split (%)	28.7%	33.8%	33.8%	21.4%	33.8%	33.8%	16.3%	19.0%	21.4%	18.5%	19.0%	0.0%
Maximum Green (s)	34.0	40.0	40.0	24.0	40.0	40.0	17.0	20.0	24.0	20.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

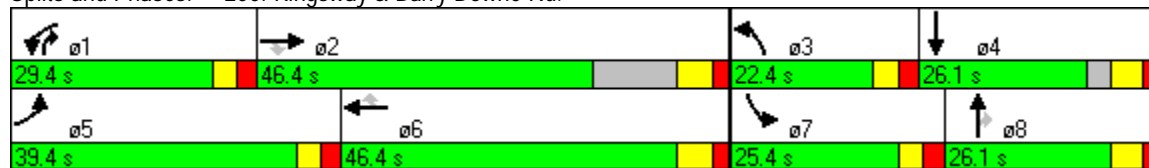
Friday pre-game hour
Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0				21.0
Pedestrian Calls (#/hr)		0	0		0	0		0				0
Act Effct Green (s)	22.5	43.0	43.0	11.9	32.5	32.5	7.8	14.8	32.9	20.2	27.1	113.5
Actuated g/C Ratio	0.20	0.38	0.38	0.10	0.29	0.29	0.07	0.13	0.29	0.18	0.24	1.00
v/c Ratio	0.78	0.91	0.12	0.58	0.70	0.67	0.36	0.60	0.28	1.38	0.34	0.26
Control Delay	52.4	45.5	8.0	62.6	41.4	15.6	57.3	53.5	33.1	217.8	38.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	45.5	8.0	62.6	41.4	15.6	57.3	53.5	33.1	217.8	38.7	0.4
LOS	D	D	A	E	D	B	E	D	C	F	D	A
Approach Delay		45.9			33.9			48.8				126.9
Approach LOS		D			C			D				F
Queue Length 50th (m)	59.4	139.7	1.4	23.7	75.9	23.3	9.7	31.3	22.4	~130.1	28.7	0.0
Queue Length 95th (m)	91.1	197.7	12.1	48.5	113.0	69.5	21.0	53.5	43.7	#219.5	51.4	0.0
Internal Link Dist (m)		525.9			449.7			363.7				353.3
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	948	1484	653	344	1164	692	489	600	510	618	855	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.83	0.12	0.32	0.60	0.67	0.18	0.46	0.25	1.38	0.34	0.26

Intersection Summary

























Area Type: Other
 Cycle Length: 137.3
 Actuated Cycle Length: 113.5
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.38
 Intersection Signal Delay: 67.6
 Intersection LOS: E
 Intersection Capacity Utilization 87.3%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	1460	235	60	590	280	210	345	70	720	340	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			308			17			390
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.91	0.95	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91
Heavy Vehicles (%)	4%	3%	2%	4%	3%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	511	1537	258	66	648	308	231	379	77	758	374	390
Shared Lane Traffic (%)												
Lane Group Flow (vph)	511	1537	258	66	648	308	231	456	0	758	374	390
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	30.7	30.7	20.0	31.7	31.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	25.9%	24.1%	24.1%	15.7%	24.9%	24.9%	15.7%	26.5%	0.0%	22.8%	25.7%	0.0%
Maximum Green (s)	28.0	24.0	24.0	15.0	25.0	25.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

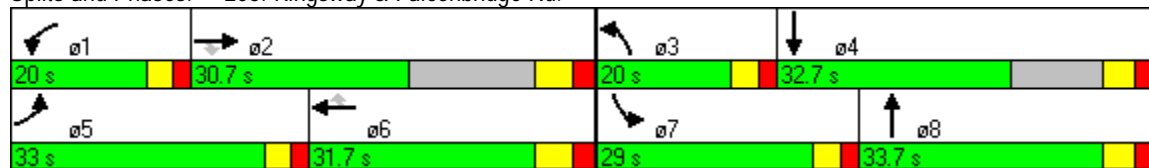
Friday pre-game hour
Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		18.0	18.0		20.0			19.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	21.8	39.4	39.4	9.3	24.4	24.4	12.2	20.2		24.2	32.2	114.2
Actuated g/C Ratio	0.19	0.35	0.35	0.08	0.21	0.21	0.11	0.18		0.21	0.28	1.00
v/c Ratio	0.79	1.27	0.42	0.47	0.87	0.53	0.63	0.72		1.03	0.37	0.24
Control Delay	54.3	161.9	20.1	63.3	57.3	8.3	57.9	50.1		86.8	35.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	54.3	161.9	20.1	63.3	57.3	8.3	57.9	50.1		86.8	35.1	0.4
LOS	D	F	C	E	E	A	E	D		F	D	A
Approach Delay		122.2			42.9			52.7			52.0	
Approach LOS		F			D			D			D	
Queue Length 50th (m)	59.7	~248.5	26.4	15.2	77.8	0.0	27.2	52.1		~100.3	37.6	0.0
Queue Length 95th (m)	84.2	#332.4	56.9	31.7	#127.1	25.4	44.1	74.3		#161.9	56.5	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	786	1215	618	214	767	584	446	794		734	1095	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.65	1.27	0.42	0.31	0.84	0.53	0.52	0.57		1.03	0.34	0.24

Intersection Summary






















Area Type: Other
 Cycle Length: 127.4
 Actuated Cycle Length: 114.2
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.27
 Intersection Signal Delay: 79.7
 Intersection LOS: E
 Intersection Capacity Utilization 96.3%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1905	45	20	795	0	40	0	40	0	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	3.0	3.6	3.0	3.0
Storage Length (m)	100.0		90.0	30.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	0		1
Taper Length (m)	100.0		75.0	40.0		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			0.850
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1504	3505	1615	1805	3505	0	0	1685	1507	0	1773	1507
Flt Permitted	0.950			0.950				0.757				
Satd. Flow (perm)	1504	3505	1615	1805	3505	0	0	1342	1507	0	1773	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			40						42			292
Link Speed (k/h)		60			80			50				50
Link Distance (m)		974.0			667.8			260.4				172.8
Travel Time (s)		58.4			30.1			18.7				12.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	2005	47	21	837	0	42	0	42	0	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	2005	47	21	837	0	0	42	42	0	0	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm		Perm	Perm	Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases			2				8		8	4		4
Detector Phase	5	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	10.0	37.1	37.1	10.0	37.1		33.5	33.5	33.5	33.5	33.5	33.5
Total Split (s)	15.0	57.1	57.1	17.0	57.1	0.0	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	15.1%	57.3%	57.3%	17.1%	57.3%	0.0%	25.6%	25.6%	25.6%	25.6%	25.6%	25.6%
Maximum Green (s)	10.0	50.0	50.0	12.0	50.0		20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.0	5.1	5.1	3.0	5.1		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.2	2.2	2.2	2.2	2.2	2.2
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)	5.0	7.1	7.1	5.0	7.1	4.0	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0		3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None

Lanes, Volumes, Timings
210: Kingsway & 3rd Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		15.0	15.0		15.0		21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0		0	0	0	0	0	0
Act Effect Green (s)	6.1	64.8	64.8	6.8	67.6			9.5	9.5			9.5
Actuated g/C Ratio	0.06	0.73	0.73	0.07	0.76			0.10	0.10			0.10
v/c Ratio	0.05	0.79	0.04	0.16	0.32			0.30	0.22			0.01
Control Delay	39.8	14.9	3.2	39.2	5.3			38.6	14.0			0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0			0.0
Total Delay	39.8	14.9	3.2	39.2	5.3			38.6	14.0			0.0
LOS	D	B	A	D	A			D	B			A
Approach Delay		14.7			6.1			26.3				
Approach LOS		B			A			C				
Queue Length 50th (m)	0.7	80.7	0.3	2.8	18.9			5.5	0.0			0.0
Queue Length 95th (m)	4.4	#239.6	4.9	10.5	51.1			16.6	9.2			0.0
Internal Link Dist (m)		950.0			643.8			236.4			148.8	
Turn Bay Length (m)	100.0		90.0	30.0								
Base Capacity (vph)	151	2543	1183	220	2662			270	337			537
Starvation Cap Reductn	0	0	0	0	0			0	0			0
Spillback Cap Reductn	0	0	0	0	0			0	0			0
Storage Cap Reductn	0	0	0	0	0			0	0			0
Reduced v/c Ratio	0.03	0.79	0.04	0.10	0.31			0.16	0.12			0.01

Intersection Summary

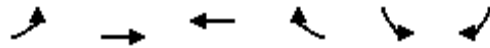
Area Type: Other
 Cycle Length: 99.6
 Actuated Cycle Length: 89.3
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 12.5
 Intersection LOS: B
 Intersection Capacity Utilization 69.8%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 210: Kingsway & 3rd Ave.



Lanes, Volumes, Timings
215: Kingsway & Street A

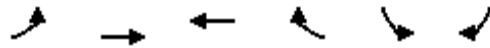
Friday pre-game hour
Total future volumes (with Maley Drive)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	750	1185	560	270	160	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0			100.0	0.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	60.0			60.0	7.5	7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Fl _t Permitted	0.274				0.950	
Satd. Flow (perm)	510	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				284		283
Link Speed (k/h)		80	80		50	
Link Distance (m)		514.2	612.8		214.8	
Travel Time (s)		23.1	27.6		15.5	
Peak Hour Factor	0.95	0.95	0.92	0.95	0.92	0.92
Adj. Flow (vph)	789	1247	609	284	174	283
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	1247	609	284	174	283
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Turn Type	pm+pt			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	11.0	23.9	30.9	30.9	28.6	28.6
Total Split (s)	44.0	37.9	37.9	37.9	35.6	35.6
Total Split (%)	37.4%	32.3%	32.3%	32.3%	30.3%	30.3%
Maximum Green (s)	40.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.9	5.9	5.9	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.9	7.9	7.9	5.6	5.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)			7.0	7.0	7.0	7.0
Flash Dont Walk (s)			16.0	16.0	16.0	16.0

Lanes, Volumes, Timings
215: Kingsway & Street A

Friday pre-game hour
Total future volumes (with Maley Drive)

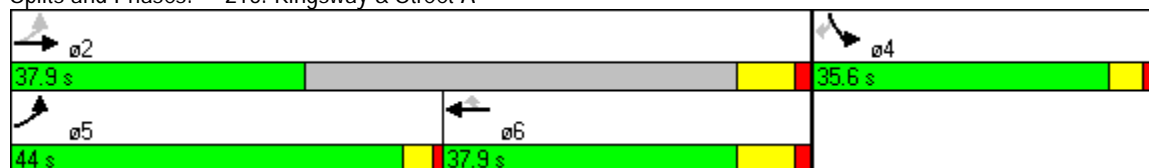


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Pedestrian Calls (#/hr)			0	0	0	0
Act Effect Green (s)	78.0	74.1	30.1	30.1	15.5	15.5
Actuated g/C Ratio	0.76	0.72	0.29	0.29	0.15	0.15
v/c Ratio	0.90	0.49	0.59	0.43	0.65	0.59
Control Delay	30.8	7.6	34.7	5.9	53.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	7.6	34.7	5.9	53.0	10.1
LOS	C	A	C	A	D	B
Approach Delay		16.6	25.6		26.4	
Approach LOS		B	C		C	
Queue Length 50th (m)	102.3	51.4	57.5	0.0	35.0	0.0
Queue Length 95th (m)	#211.9	83.3	83.3	20.4	57.2	22.6
Internal Link Dist (m)		490.2	588.8		190.8	
Turn Bay Length (m)	150.0			100.0		
Base Capacity (vph)	875	2542	1031	662	452	615
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	0.90	0.49	0.59	0.43	0.38	0.46

Intersection Summary
























Area Type: Other
 Cycle Length: 117.5
 Actuated Cycle Length: 103.2
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 20.3
 Intersection LOS: C
 Intersection Capacity Utilization 80.5%
 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: 215: Kingsway & Street A



Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	620	600	125	55	655	370	100	265	75	35	20	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		100.0	20.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	60.0		65.0	95.0		60.0	20.0		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.966				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3539	1583	1736	3438	1454	1805	1823	0	1805	1900	1615
Flt Permitted	0.228			0.401			0.743			0.191		
Satd. Flow (perm)	433	3539	1583	733	3438	1454	1412	1823	0	363	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			137			155		13				104
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.95	0.91	0.91	0.91	0.95	0.95	0.91	0.95	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	653	659	137	60	689	389	110	279	82	38	22	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	659	137	60	689	389	110	361	0	38	22	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	1	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8		27.8	27.8	27.8
Total Split (s)	39.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8	0.0	27.8	27.8	27.8
Total Split (%)	37.2%	36.2%	36.2%	8.6%	36.2%	36.2%	26.6%	26.6%	0.0%	26.6%	26.6%	26.6%
Maximum Green (s)	35.0	30.0	30.0	5.0	30.0	30.0	21.0	21.0		21.0	21.0	21.0
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	3.2	3.2		3.2	3.2	3.2
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)	4.0	7.9	7.9	4.0	7.9	7.9	6.8	6.8	4.0	6.8	6.8	6.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	3.5
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	None

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

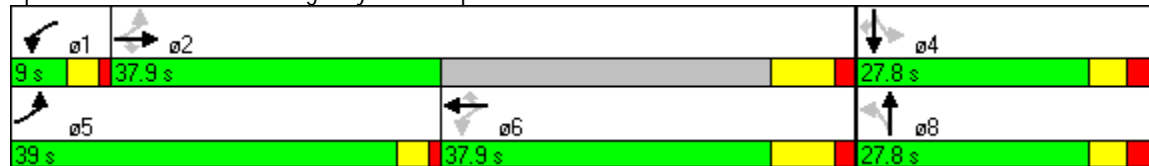
Friday pre-game hour
Total future volumes (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		16.0	16.0		16.0	16.0	14.0	14.0		14.0	14.0	14.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effect Green (s)	71.3	60.3	60.3	38.9	30.0	30.0	20.9	20.9		20.9	20.9	20.9
Actuated g/C Ratio	0.69	0.59	0.59	0.37	0.29	0.29	0.20	0.20		0.20	0.20	0.20
v/c Ratio	0.88	0.32	0.14	0.19	0.69	0.73	0.38	0.95		0.51	0.06	0.25
Control Delay	31.4	11.8	2.1	12.6	36.9	28.8	40.8	75.6		64.1	34.5	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	31.4	11.8	2.1	12.6	36.9	28.8	40.8	75.6		64.1	34.5	8.8
LOS	C	B	A	B	D	C	D	E		E	C	A
Approach Delay		19.7			32.9			67.5			25.0	
Approach LOS		B			C			E			C	
Queue Length 50th (m)	87.8	36.6	0.0	3.9	69.2	46.0	20.6	74.7		7.3	3.8	0.0
Queue Length 95th (m)	#156.0	47.9	8.0	8.2	90.5	84.0	37.9	#133.8		#22.7	10.7	14.2
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)	75.0		90.0	30.0		100.0	20.0					
Base Capacity (vph)	754	2071	984	320	1003	534	288	382		74	387	412
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.87	0.32	0.14	0.19	0.69	0.73	0.38	0.95		0.51	0.06	0.25

Intersection Summary























Area Type: Other
 Cycle Length: 104.7
 Actuated Cycle Length: 103
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 31.6
 Intersection LOS: C
 Intersection Capacity Utilization 104.0%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 220: Kingsway & Levesque St.



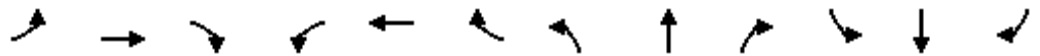
Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	630	75	20	1020	5	45	0	15	5	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		20.0	50.0		75.0	20.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	100.0		40.0	100.0		95.0	30.0		7.5	15.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850		0.850			0.850	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3505	1599	1736	3438	1615	1805	1615	0	1612	1468	0
Fl _t Permitted	0.950			0.950			0.746			0.746		
Satd. Flow (perm)	1687	3505	1599	1736	3438	1615	1417	1615	0	1266	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			48			6		349			264	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		457.8			1178.3			983.3			168.8	
Travel Time (s)		20.6			53.0			70.8			12.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.95	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	7%	3%	1%	4%	5%	0%	0%	0%	0%	12%	0%	10%
Adj. Flow (vph)	6	741	88	24	1074	6	53	0	18	6	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	741	88	24	1074	6	53	18	0	6	18	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	5	2		1	6			8				4
Permitted Phases			2			6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	37.9	37.9	10.0	37.9	37.9	30.7	30.7		30.7	30.7	
Total Split (s)	23.0	67.9	67.9	20.0	67.9	67.9	31.7	31.7	0.0	31.7	31.7	0.0
Total Split (%)	18.8%	55.4%	55.4%	16.3%	55.4%	55.4%	25.9%	25.9%	0.0%	25.9%	25.9%	0.0%
Maximum Green (s)	18.0	60.0	60.0	15.0	60.0	60.0	25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	4.1	4.1		4.1	4.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6		2.6	2.6	
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)	5.0	7.9	7.9	5.0	7.9	7.9	6.7	6.7	4.0	6.7	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	4.0	4.0		4.0	4.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	

Lanes, Volumes, Timings
225: Kingsway & Moonlight Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)

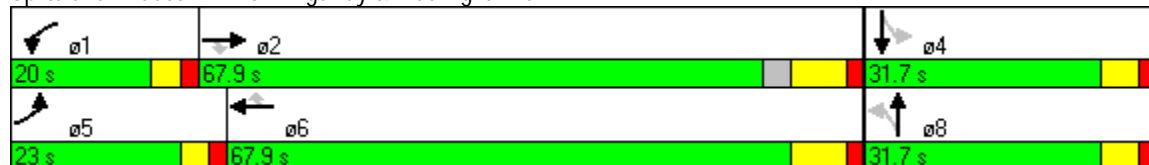


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	17.0	17.0		17.0	17.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	6.3	53.0	53.0	7.2	56.1	56.1	10.6	10.6		10.6	10.6	
Actuated g/C Ratio	0.08	0.70	0.70	0.09	0.74	0.74	0.13	0.13		0.13	0.13	
v/c Ratio	0.05	0.30	0.08	0.16	0.42	0.00	0.29	0.04		0.04	0.04	
Control Delay	34.6	8.3	5.3	32.7	7.4	5.0	30.2	0.1		27.4	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.6	8.3	5.3	32.7	7.4	5.0	30.2	0.1		27.4	0.2	
LOS	C	A	A	C	A	A	C	A		C	A	
Approach Delay		8.2			7.9			22.6				7.0
Approach LOS		A			A			C				A
Queue Length 50th (m)	0.6	19.1	1.6	2.2	31.8	0.0	4.7	0.0		0.5	0.0	
Queue Length 95th (m)	4.3	48.8	9.6	10.4	80.7	1.6	17.4	0.0		3.9	0.0	
Internal Link Dist (m)		433.8			1154.3			959.3				144.8
Turn Bay Length (m)	30.0		20.0	50.0		75.0	20.0			20.0		
Base Capacity (vph)	333	2779	1278	307	2772	1303	393	700		351	598	
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	0.02	0.27	0.07	0.08	0.39	0.00	0.13	0.03		0.02	0.03	

Intersection Summary





















Area Type:	Other
Cycle Length:	122.6
Actuated Cycle Length:	75.4
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization:	52.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 225: Kingsway & Moonlight Ave.



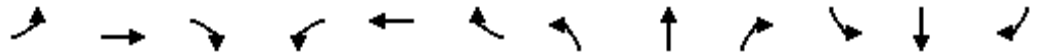
Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	465	65	10	180	125	25	55	10	150	70	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95	0.99	0.99			0.99			0.99	0.94
Frt			0.850		0.939			0.986				0.850
Flt Protected	0.950			0.950				0.986			0.967	
Satd. Flow (prot)	1736	1827	1615	1805	1693	0	0	1839	0	0	1801	1583
Flt Permitted	0.299			0.485				0.812			0.617	
Satd. Flow (perm)	544	1827	1539	909	1693	0	0	1503	0	0	1136	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81		40			5				192
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.80	0.95	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	4%	4%	0%	0%	5%	3%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	450	489	81	12	225	156	31	69	12	188	88	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	450	489	81	12	381	0	0	112	0	0	276	300
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			pm+pt		Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		7	7 4	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		5.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		9.0	25.7	25.7
Total Split (s)	20.0	45.7	45.7	45.7	45.7	0.0	25.7	25.7	0.0	11.0	25.7	25.7
Total Split (%)	19.5%	44.6%	44.6%	44.6%	44.6%	0.0%	25.1%	25.1%	0.0%	10.7%	25.1%	25.1%
Maximum Green (s)	16.0	40.0	40.0	40.0	40.0		20.0	20.0		7.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.0	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	4.0	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		2.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Total future volumes (with Maley Drive)

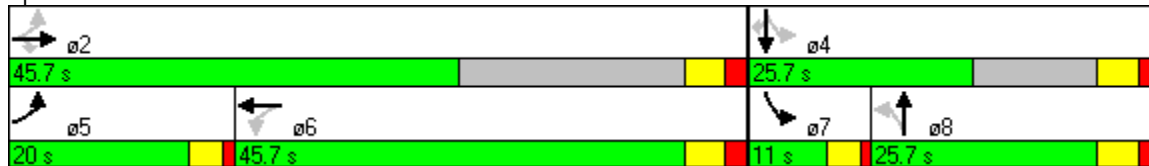


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0			13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0			0	0
Act Effct Green (s)	46.6	44.9	44.9	24.7	24.7			11.5			20.9	20.9
Actuated g/C Ratio	0.60	0.58	0.58	0.32	0.32			0.14			0.27	0.27
v/c Ratio	0.78	0.46	0.09	0.04	0.67			0.51			0.75	0.55
Control Delay	21.2	11.8	2.4	19.6	27.6			39.3			40.3	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	21.2	11.8	2.4	19.6	27.6			39.3			40.3	13.6
LOS	C	B	A	B	C			D			D	B
Approach Delay		15.2			27.3			39.3			26.4	
Approach LOS		B			C			D			C	
Queue Length 50th (m)	34.9	40.8	0.0	1.3	45.8			15.0			34.6	12.4
Queue Length 95th (m)	#55.3	73.7	4.4	4.7	68.6			30.5			59.2	30.5
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	577	1188	1029	395	758			345			589	656
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.78	0.41	0.08	0.03	0.50			0.32			0.47	0.46

Intersection Summary
























Area Type: Other
 Cycle Length: 102.4
 Actuated Cycle Length: 77.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 21.8 Intersection LOS: C
 Intersection Capacity Utilization 74.0% 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: 305: Bancroft Dr. & 2nd Ave.



Lanes, Volumes, Timings
100: Lasalle Blvd. & Barry Downe Rd.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	345	385	215	380	100	240	245	220	140	435	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		0.0	100.0		0.0	100.0		45.0	50.0		0.0
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (m)	25.0		7.5	9.0		7.5	20.0		25.0	45.0		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.99	
Frt			0.850		0.969				0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3436	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1787	3374	0	1787	3539	1568	1770	3436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			362		28				239		21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		286.9			337.0			317.9			226.1	
Travel Time (s)		20.7			24.3			22.9			16.3	
Confl. Peds. (#/hr)						40						25
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
Heavy Vehicles (%)	2%	2%	2%	1%	3%	0%	1%	2%	3%	2%	1%	3%
Adj. Flow (vph)	136	375	418	234	413	109	261	266	239	152	473	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	375	418	234	522	0	261	266	239	152	576	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0		5.0	8.0	8.0	5.0	8.0	
Minimum Split (s)	10.0	35.7	35.7	10.0	35.7		10.0	31.7	31.7	10.0	28.7	
Total Split (s)	25.0	35.7	35.7	25.0	35.7	0.0	24.0	30.7	30.7	20.0	28.7	0.0
Total Split (%)	22.0%	31.5%	31.5%	22.0%	31.5%	0.0%	21.2%	27.1%	27.1%	17.6%	25.3%	0.0%
Maximum Green (s)	20.0	30.0	30.0	20.0	30.0		19.0	25.0	25.0	15.0	23.0	
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7	3.0	3.7	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.7	5.7	5.0	5.7	4.0	5.0	5.7	5.7	5.0	5.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0		2.5	3.5	3.5	2.5	3.5	

Lanes, Volumes, Timings
 100: Lasalle Blvd. & Barry Downe Rd.

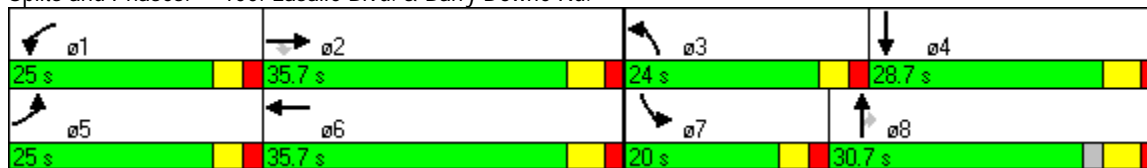
Friday pre-game hour
 Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		17.0	17.0		21.0			19.0	19.0		16.0	
Pedestrian Calls (#/hr)		0	0		0			0	0		0	
Act Effect Green (s)	13.2	30.1	30.1	17.6	34.5		18.0	26.4	26.4	12.9	21.3	
Actuated g/C Ratio	0.12	0.28	0.28	0.16	0.32		0.17	0.24	0.24	0.12	0.20	
v/c Ratio	0.63	0.38	0.60	0.81	0.48		0.88	0.31	0.43	0.72	0.83	
Control Delay	59.2	34.1	10.1	66.1	31.1		74.6	35.5	7.1	66.7	52.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	59.2	34.1	10.1	66.1	31.1		74.6	35.5	7.1	66.7	52.5	
LOS	E	C	B	E	C		E	D	A	E	D	
Approach Delay		27.0			41.9			40.0			55.5	
Approach LOS		C			D			D			E	
Queue Length 50th (m)	30.7	37.8	10.0	52.3	48.2		60.0	26.8	0.0	34.2	65.5	
Queue Length 95th (m)	49.5	52.5	41.0	#87.8	69.9		#107.2	39.4	20.1	#59.3	#87.5	
Internal Link Dist (m)		262.9			313.0			293.9			202.1	
Turn Bay Length (m)	35.0			100.0			100.0		45.0	50.0		
Base Capacity (vph)	308	983	701	323	1093		311	886	562	241	735	
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	0.44	0.38	0.60	0.72	0.48		0.84	0.30	0.43	0.63	0.78	

Intersection Summary

























Area Type: Other
 Cycle Length: 113.4
 Actuated Cycle Length: 108.5
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 40.2
 Intersection LOS: D
 Intersection Capacity Utilization 85.6%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 100: Lasalle Blvd. & Barry Downe Rd.



Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	495	1165	70	100	645	425	80	255	120	810	270	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	180.0		100.0	80.0		0.0	35.0		35.0	80.0		95.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	35.0		100.0	50.0		7.5	60.0		60.0	50.0		20.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1615	1787	3505	1583	3502	3539	1615	3467	3574	1599
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)			63			365						408
Link Speed (k/h)		50			50			50				50
Link Distance (m)		549.9			473.7			387.7				377.3
Travel Time (s)		39.6			34.1			27.9				27.2
Peak Hour Factor	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	3%	2%	0%	2%	0%	1%	1%	1%
Adj. Flow (vph)	538	1226	76	109	701	462	87	277	130	853	293	408
Shared Lane Traffic (%)												
Lane Group Flow (vph)	538	1226	76	109	701	462	87	277	130	853	293	408
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		Free
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	8.0	5.0	5.0	8.0	
Minimum Split (s)	10.4	35.4	35.4	10.4	32.4	32.4	10.4	34.1	10.4	10.4	34.1	
Total Split (s)	39.4	35.4	35.4	29.4	32.4	32.4	22.4	26.1	29.4	29.4	26.1	0.0
Total Split (%)	31.0%	27.8%	27.8%	23.1%	25.5%	25.5%	17.6%	20.5%	23.1%	23.1%	20.5%	0.0%
Maximum Green (s)	34.0	29.0	29.0	24.0	26.0	26.0	17.0	20.0	24.0	24.0	20.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7	3.0	3.0	3.7	
All-Red Time (s)	2.4	2.2	2.2	2.4	2.2	2.2	2.4	2.4	2.4	2.4	2.4	
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)	5.4	6.4	6.4	5.4	6.4	6.4	5.4	6.1	5.4	5.4	6.1	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5	2.5	2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
200: Kingsway & Barry Downe Rd.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		22.0	22.0		19.0	19.0		21.0				21.0
Pedestrian Calls (#/hr)		0	0		0	0		0				0
Act Effect Green (s)	21.8	36.0	36.0	11.6	25.9	25.9	7.7	14.3	32.1	24.1	33.2	109.5
Actuated g/C Ratio	0.20	0.33	0.33	0.11	0.24	0.24	0.07	0.13	0.29	0.22	0.30	1.00
v/c Ratio	0.78	1.05	0.13	0.58	0.85	0.71	0.36	0.60	0.27	1.12	0.27	0.26
Control Delay	50.4	77.9	10.1	59.8	51.7	16.0	54.6	51.2	31.1	110.0	31.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	77.9	10.1	59.8	51.7	16.0	54.6	51.2	31.1	110.0	31.8	0.4
LOS	D	E	B	E	D	B	D	D	C	F	C	A
Approach Delay		67.1			39.4			46.5				66.5
Approach LOS		E			D			D				E
Queue Length 50th (m)	59.4	~158.1	2.0	23.7	79.2	17.8	9.7	31.2	22.4	~114.0	27.1	0.0
Queue Length 95th (m)	82.2	#228.0	13.7	44.4	#128.1	63.4	19.3	48.3	39.0	#177.2	43.5	0.0
Internal Link Dist (m)		525.9			449.7			363.7				353.3
Turn Bay Length (m)	180.0		100.0	80.0			35.0		35.0	80.0		95.0
Base Capacity (vph)	971	1179	574	353	834	653	493	616	519	764	1085	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.04	0.13	0.31	0.84	0.71	0.18	0.45	0.25	1.12	0.27	0.26

Intersection Summary

























Area Type: Other
 Cycle Length: 127.3
 Actuated Cycle Length: 109.5
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 58.1 Intersection LOS: E
 Intersection Capacity Utilization 87.3% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 200: Kingsway & Barry Downe Rd.



Lanes, Volumes, Timings
205: Kingsway & Falconbridge Rd.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	465	1460	235	60	595	280	210	345	70	720	340	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		60.0	115.0		70.0	75.0		0.0	75.0		75.0
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (m)	100.0		80.0	85.0		70.0	50.0		7.5	75.0		65.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Fr _t			0.850			0.850		0.975				0.850
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3505	1583	1736	3505	1599	3467	3485	0	3467	3574	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			307			16			390
Link Speed (k/h)		50			60			50				50
Link Distance (m)		473.7			974.0			320.5				783.8
Travel Time (s)		34.1			58.4			23.1				56.4
Peak Hour Factor	0.91	0.95	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91
Heavy Vehicles (%)	4%	3%	2%	4%	3%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	511	1537	258	66	654	308	231	379	77	758	374	390
Shared Lane Traffic (%)												
Lane Group Flow (vph)	511	1537	258	66	654	308	231	456	0	758	374	390
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2				7.2
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						Free
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	8.0		5.0	8.0	
Minimum Split (s)	10.0	30.7	30.7	10.0	31.7	31.7	10.0	33.7		10.0	32.7	
Total Split (s)	33.0	53.7	53.7	20.0	31.7	31.7	20.0	33.7	0.0	29.0	32.7	0.0
Total Split (%)	24.2%	39.4%	39.4%	14.7%	23.2%	23.2%	14.7%	24.7%	0.0%	21.3%	24.0%	0.0%
Maximum Green (s)	28.0	47.0	47.0	15.0	25.0	25.0	15.0	27.0		24.0	26.0	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	3.7		3.0	3.7	
All-Red Time (s)	2.0	2.5	2.5	2.0	2.5	2.5	2.0	3.0		2.0	3.0	
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)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.7	4.0	5.0	6.7	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	3.6	3.6	2.5	3.6	3.6	2.5	3.5		2.5	3.5	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	

Lanes, Volumes, Timings
 205: Kingsway & Falconbridge Rd.

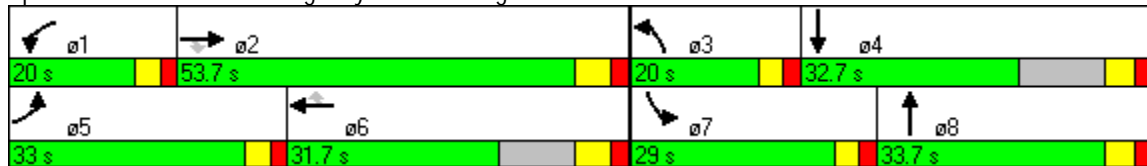
Friday pre-game hour
 Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		17.0	17.0			18.0	18.0			20.0		19.0
Pedestrian Calls (#/hr)		0	0			0	0			0		0
Act Effct Green (s)	22.8	47.4	47.4	9.7	31.7	31.7	12.6	21.0		24.2	32.6	123.3
Actuated g/C Ratio	0.18	0.38	0.38	0.08	0.26	0.26	0.10	0.17		0.20	0.26	1.00
v/c Ratio	0.82	1.14	0.38	0.49	0.73	0.48	0.65	0.75		1.11	0.40	0.24
Control Delay	60.6	108.8	18.8	69.2	48.2	7.1	63.7	55.7		116.0	39.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.6	108.8	18.8	69.2	48.2	7.1	63.7	55.7		116.0	39.8	0.4
LOS	E	F	B	E	D	A	E	E		F	D	A
Approach Delay		88.1			37.3			58.4			67.6	
Approach LOS		F			D			E			E	
Queue Length 50th (m)	66.1	~250.4	27.0	16.8	81.2	0.2	30.1	58.0		~118.7	42.6	0.0
Queue Length 95th (m)	90.7	#330.9	56.4	33.7	113.9	24.5	46.9	79.8		#176.4	61.3	0.0
Internal Link Dist (m)		449.7			950.0			296.5			759.8	
Turn Bay Length (m)	100.0		60.0	115.0		70.0	75.0			75.0		75.0
Base Capacity (vph)	737	1347	675	200	954	639	416	744		680	1021	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.69	1.14	0.38	0.33	0.69	0.48	0.56	0.61		1.11	0.37	0.24

Intersection Summary

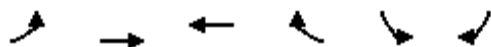
Area Type: Other
 Cycle Length: 136.4
 Actuated Cycle Length: 123.3
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 69.4 Intersection LOS: E
 Intersection Capacity Utilization 96.3% ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 205: Kingsway & Falconbridge Rd.



Lanes, Volumes, Timings
215: Kingsway & Street A

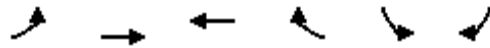
Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↖	↗↗	↖↖	↗	↘	↘
Volume (vph)	750	1185	560	270	155	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	150.0			100.0	0.0	0.0
Storage Lanes	2			1	1	1
Taper Length (m)	60.0			60.0	7.5	7.5
Lane Util. Factor	0.97	0.95	0.95	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	1770	1583
Fl _t Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				284		283
Link Speed (k/h)		80	80		50	
Link Distance (m)		514.2	612.8		214.8	
Travel Time (s)		23.1	27.6		15.5	
Peak Hour Factor	0.95	0.95	0.92	0.95	0.92	0.92
Adj. Flow (vph)	789	1247	609	284	168	283
Shared Lane Traffic (%)						
Lane Group Flow (vph)	789	1247	609	284	168	283
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		7.2	7.2		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Turn Type	Prot			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	11.0	23.9	30.9	30.9	28.6	28.6
Total Split (s)	34.0	37.9	37.9	37.9	35.6	35.6
Total Split (%)	31.6%	35.3%	35.3%	35.3%	33.1%	33.1%
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.9	5.9	5.9	3.6	3.6
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.9	7.9	7.9	5.6	5.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)			7.0	7.0	7.0	7.0
Flash Dont Walk (s)			16.0	16.0	16.0	16.0

Lanes, Volumes, Timings
215: Kingsway & Street A

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

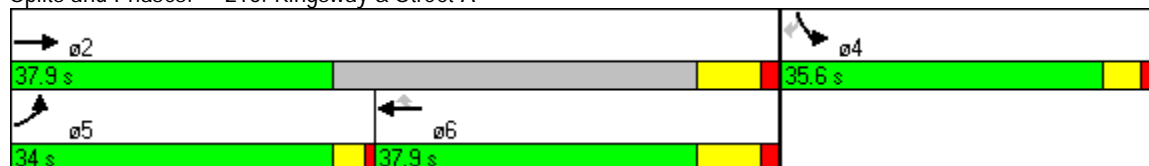


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Pedestrian Calls (#/hr)			0	0	0	0
Act Effect Green (s)	25.0	59.3	30.3	30.3	14.2	14.2
Actuated g/C Ratio	0.29	0.68	0.35	0.35	0.16	0.16
v/c Ratio	0.80	0.52	0.50	0.39	0.58	0.57
Control Delay	35.9	8.1	25.5	4.9	43.1	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	8.1	25.5	4.9	43.1	9.3
LOS	D	A	C	A	D	A
Approach Delay		18.9	18.9		21.9	
Approach LOS		B	B		C	
Queue Length 50th (m)	64.8	48.0	44.0	0.0	27.8	0.0
Queue Length 95th (m)	94.9	79.3	71.3	18.4	50.0	21.2
Internal Link Dist (m)		490.2	588.8		190.8	
Turn Bay Length (m)	150.0			100.0		
Base Capacity (vph)	1123	2470	1230	735	518	663
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	0.70	0.50	0.50	0.39	0.32	0.43

Intersection Summary























Area Type:	Other
Cycle Length:	107.5
Actuated Cycle Length:	87.1
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	19.3
Intersection LOS:	B
Intersection Capacity Utilization:	60.0%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 215: Kingsway & Street A



Lanes, Volumes, Timings
220: Kingsway & Levesque St.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	620	600	125	55	655	370	100	265	75	35	20	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.6	3.6	3.6	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Storage Length (m)	75.0		90.0	30.0		100.0	20.0		0.0	0.0		0.0
Storage Lanes	2		1	1		1	1		0	1		0
Taper Length (m)	60.0		65.0	95.0		60.0	20.0		7.5	7.5		7.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.966				0.876
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	3539	1583	1736	3438	1454	1805	1823	0	1805	1664	0
Flt Permitted	0.950			0.401			0.676			0.244		
Satd. Flow (perm)	3502	3539	1583	733	3438	1454	1284	1823	0	464	1664	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			137			119		13				104
Link Speed (k/h)		80			80			50				50
Link Distance (m)		612.8			457.8			763.1				110.6
Travel Time (s)		27.6			20.6			54.9				8.0
Peak Hour Factor	0.95	0.91	0.91	0.91	0.95	0.95	0.91	0.95	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	2%	4%	5%	0%	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	653	659	137	60	689	389	110	279	82	38	22	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	653	659	137	60	689	389	110	361	0	38	126	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6				3.6
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	5	2		1	6			8				4
Permitted Phases			2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4		4
Switch Phase												
Minimum Initial (s)	5.0	30.0	30.0	5.0	30.0	30.0	8.0	8.0		8.0		8.0
Minimum Split (s)	9.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8		27.8		27.8
Total Split (s)	34.0	37.9	37.9	9.0	37.9	37.9	27.8	27.8	0.0	27.8	27.8	0.0
Total Split (%)	34.1%	38.0%	38.0%	9.0%	38.0%	38.0%	27.9%	27.9%	0.0%	27.9%	27.9%	0.0%
Maximum Green (s)	30.0	30.0	30.0	5.0	30.0	30.0	21.0	21.0		21.0		21.0
Yellow Time (s)	3.0	5.9	5.9	3.0	5.9	5.9	3.6	3.6		3.6		3.6
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	3.2	3.2		3.2		3.2
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)	4.0	7.9	7.9	4.0	7.9	7.9	6.8	6.8	4.0	6.8	6.8	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5		3.5
Recall Mode	None	Min	Min	None	Min	Min	None	None		None		None

Lanes, Volumes, Timings
220: Kingsway & Levesque St.

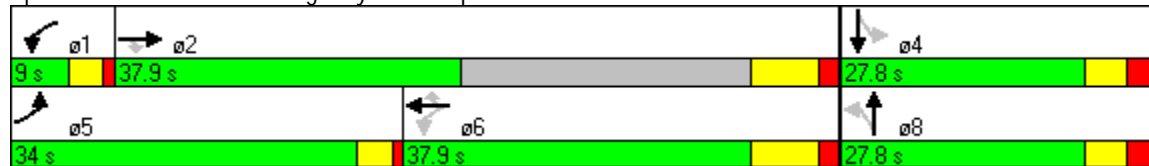
Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		16.0	16.0		16.0	16.0	14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effct Green (s)	22.1	49.2	49.2	39.0	30.1	30.1	20.4	20.4		20.4	20.4	
Actuated g/C Ratio	0.24	0.54	0.54	0.42	0.33	0.33	0.22	0.22		0.22	0.22	
v/c Ratio	0.77	0.35	0.15	0.17	0.61	0.70	0.38	0.87		0.37	0.28	
Control Delay	38.9	13.0	2.4	10.3	29.3	27.0	36.1	56.0		43.7	11.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	38.9	13.0	2.4	10.3	29.3	27.0	36.1	56.0		43.7	11.1	
LOS	D	B	A	B	C	C	D	E		D	B	
Approach Delay		23.7			27.5			51.3			18.6	
Approach LOS		C			C			D			B	
Queue Length 50th (m)	58.5	36.6	0.0	3.6	56.1	43.5	17.3	62.2		6.0	3.2	
Queue Length 95th (m)	77.5	48.5	8.3	7.6	84.1	#88.6	36.5	#124.1		17.7	18.8	
Internal Link Dist (m)		588.8			433.8			739.1			86.6	
Turn Bay Length (m)	75.0		90.0	30.0		100.0	20.0					
Base Capacity (vph)	1061	2007	957	361	1133	559	294	427		106	461	
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	0.33	0.14	0.17	0.61	0.70	0.37	0.85		0.36	0.27	

Intersection Summary





















Area Type: Other
 Cycle Length: 99.7
 Actuated Cycle Length: 91.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 28.8 Intersection LOS: C
 Intersection Capacity Utilization 87.4% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 220: Kingsway & Levesque St.



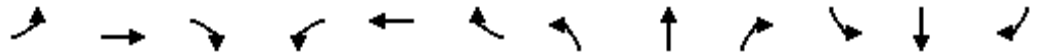
Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	465	65	10	180	125	25	55	10	150	70	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		60.0	50.0		0.0	0.0		0.0	0.0		20.0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (m)	35.0		35.0	45.0		7.5	7.5		7.5	7.5		25.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.96	0.99	0.99			0.99			0.99	0.95
Frt			0.850		0.939			0.986				0.850
Flt Protected	0.950			0.950				0.986			0.967	
Satd. Flow (prot)	1736	1827	1615	1805	1694	0	0	1840	0	0	1801	1583
Flt Permitted	0.309			0.485				0.836			0.769	
Satd. Flow (perm)	563	1827	1550	912	1694	0	0	1552	0	0	1418	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81		49			8				239
Link Speed (k/h)		50			50			50				50
Link Distance (m)		370.0			420.1			193.2				435.0
Travel Time (s)		26.6			30.2			13.9				31.3
Confl. Peds. (#/hr)	4		14	14		4	15		9	9		15
Peak Hour Factor	0.80	0.95	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	4%	4%	0%	0%	5%	3%	0%	0%	0%	3%	0%	2%
Adj. Flow (vph)	450	489	81	12	225	156	31	69	12	188	88	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	450	489	81	12	381	0	0	112	0	0	276	300
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			0.0				0.0
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	5	2			6			8				4
Permitted Phases	2		2	6			8			4		4
Detector Phase	5	2	2	6	6		8	8		4	7	4
Switch Phase												
Minimum Initial (s)	5.0	20.0	20.0	20.0	20.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	9.0	31.7	31.7	31.7	31.7		25.7	25.7		25.7	25.7	25.7
Total Split (s)	20.0	31.7	31.7	31.7	31.7	0.0	25.7	25.7	0.0	25.7	25.7	25.7
Total Split (%)	25.8%	41.0%	41.0%	41.0%	41.0%	0.0%	33.2%	33.2%	0.0%	33.2%	33.2%	33.2%
Maximum Green (s)	16.0	26.0	26.0	26.0	26.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.0	3.7	3.7	3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7	4.0	5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	5.0	5.0	5.0	5.0		3.5	3.5		3.5	3.5	3.5

Lanes, Volumes, Timings
305: Bancroft Dr. & 2nd Ave.

Friday pre-game hour
Total future volumes; signal adjustments (with Maley Drive)

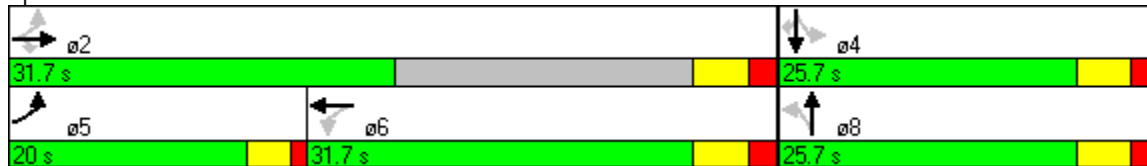


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Recall Mode	None	Min	Min	Min	Min		None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		19.0	19.0	19.0	19.0		13.0	13.0		13.0	13.0	13.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0		0	0	0
Act Effct Green (s)	43.6	41.9	41.9	22.6	22.6			17.5			17.5	17.5
Actuated g/C Ratio	0.61	0.59	0.59	0.32	0.32			0.25			0.25	0.25
v/c Ratio	0.75	0.45	0.09	0.04	0.66			0.29			0.79	0.54
Control Delay	17.4	10.1	2.0	18.1	25.2			23.0			43.6	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	17.4	10.1	2.0	18.1	25.2			23.0			43.6	10.3
LOS	B	B	A	B	C			C			D	B
Approach Delay		12.7			25.0			23.0			26.3	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	32.0	37.7	0.0	1.2	42.4			11.5			35.4	6.6
Queue Length 95th (m)	42.4	58.7	3.9	4.3	59.8			22.9			#58.0	19.9
Internal Link Dist (m)		346.0			396.1			169.2			411.0	
Turn Bay Length (m)	60.0		60.0	50.0								20.0
Base Capacity (vph)	606	1122	984	321	628			431			388	586
Starvation Cap Reductn	0	0	0	0	0			0			0	0
Spillback Cap Reductn	0	0	0	0	0			0			0	0
Storage Cap Reductn	0	0	0	0	0			0			0	0
Reduced v/c Ratio	0.74	0.44	0.08	0.04	0.61			0.26			0.71	0.51

Intersection Summary

Area Type: Other
 Cycle Length: 77.4
 Actuated Cycle Length: 70.9
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 19.3
 Intersection LOS: B
 Intersection Capacity Utilization 74.0%
 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: 305: Bancroft Dr. & 2nd Ave.



Attachment 3:
Modeled Traffic Change Due to Maley Drive West Extension

2021 Maley Drive Extension

