COUNTERPOINT LAND DEVELOPMENT BY | DILLON CONSULTING

FARHI HOLDINGS CORPORATION

TRANSPORTATION IMPACT STUDY

Mixed Use Development
0 Spitfire Way, Windsor, ON

AUGUST 2025 – 23-6213

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1.0 INTRODUCTION

1.1 PURPOSE

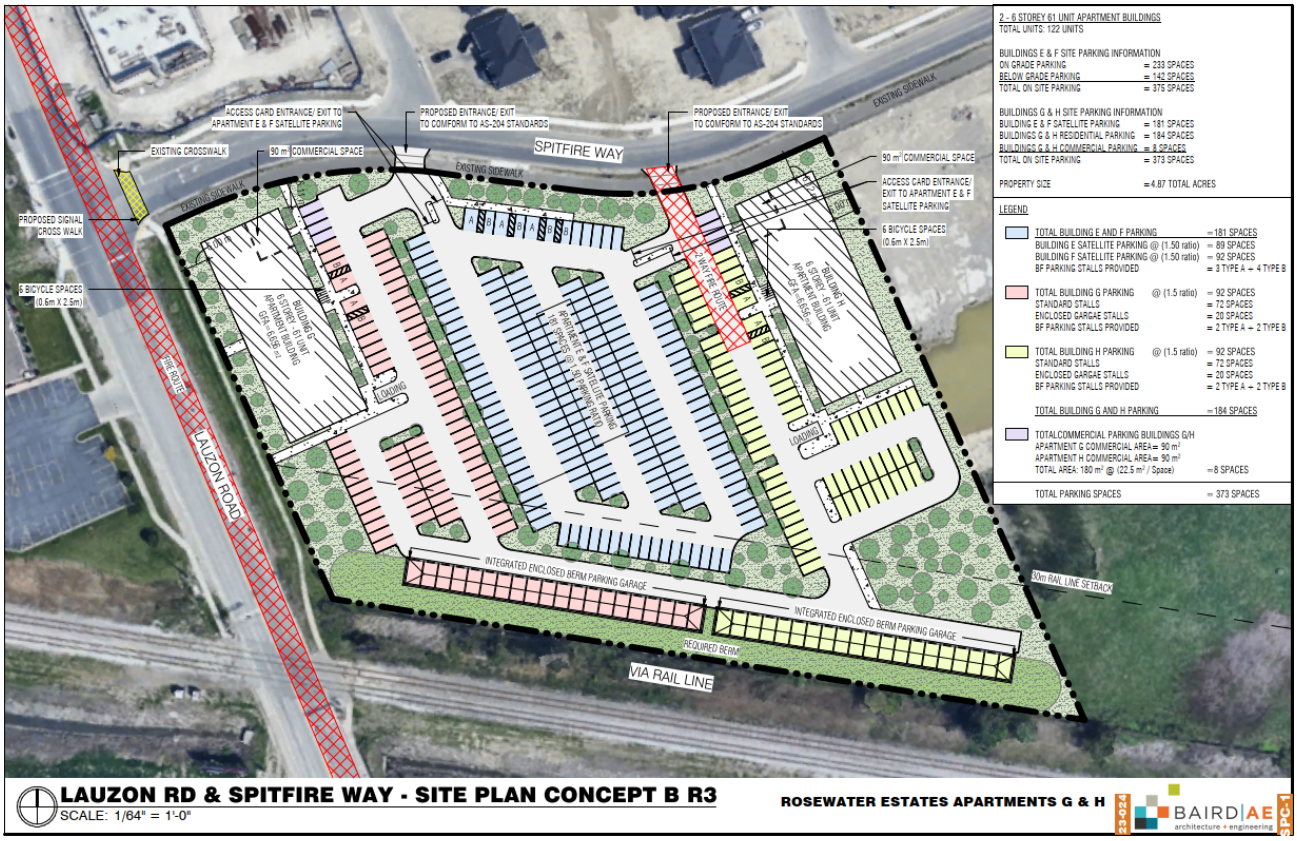
Dillon Consulting Limited (Dillon) has been retained by Farhi Holdings Corporation (Farhi) to undertake a transportation impact study (TIS) to review the impact of a proposed mixed use development in the city of Windsor. The subject site is located at 0 Spitfire Way. The site is located on the east side of Lauzon Road, west of WFCU Centre and Memorial Cup Way. The lands are currently vacant. The site location is illustrated in **Figure 1**.

Figure 1: Site Area

1.2 PROPOSED DEVELOPMENT

The development is proposed to have two six-storey combined use buildings (Buildings 'G' and 'H'), each with 61 dwelling units and 90 m^2 (969 sq. ft.) of ground floor commercial space. The site will have parking designated for the mixed-use buildings, as well as a satellite parking lot for the separate Rosewater Estates residential development (Buildings 'E' and 'F') on the north side of Spitfire Way. Two site driveways are proposed along Spitfire Way. **Figure 2** illustrates the concept plan for the development. A detailed version is included in **Appendix A**.

Figure 2: Site Plan Concept



1.3 SCOPE OF ANALYSES

Based on discussions with City of Windsor staff, the study area includes the following intersection:

- Spitfire Way and Lauzon Road.

The proposed site driveways were assessed under future traffic operations:

- Site Access A to Spitfire Way (approximately 85 metres east of Lauzon Road, opposite Bowler Drive); and
- Site Access B to Spitfire Way (approximately 140 metres east of Lauzon Road).

Traffic analyses were completed for the weekday AM and PM peak hours, as well as mid-day Saturday and Sunday peak hours. Two horizon years were assessed:

- 2030, corresponding to the anticipated build-out year; and
- 2035, corresponding to five years after the anticipated build-out year.

2.0 EXISTING CONDITIONS

2.1 EXISTING ROAD NETWORK

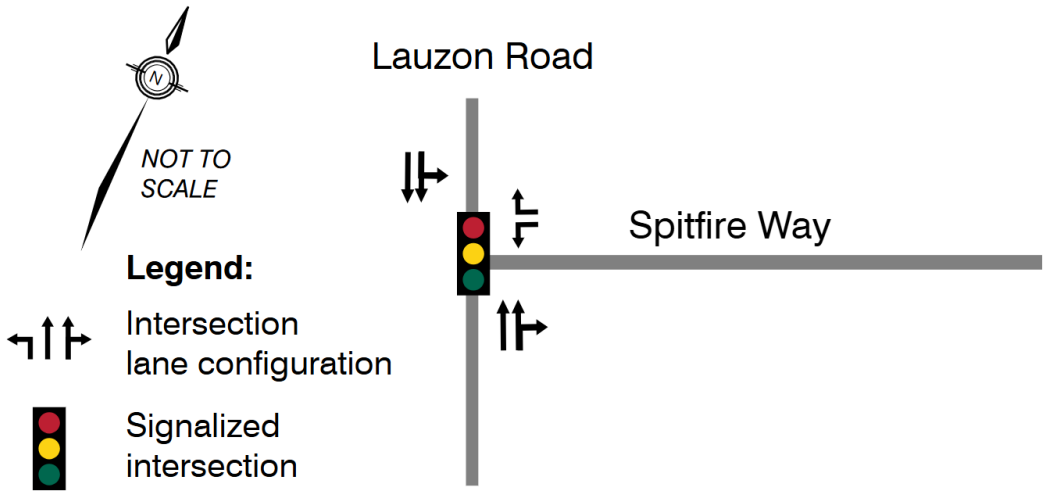
The following describes the roadways within the study area.

Lauzon Road is a Class II arterial that is under the jurisdiction of the City of Windsor. It runs north-south from Riverside Drive to County Road 42. Within the study area, the road has a four-lane cross-section with sidewalks on both sides of the road south of Spitfire Way. The posted speed limit is 50km/h.

Spitfire Way is a newly constructed east-west road under the jurisdiction of the City of Windsor. It extends from Memorial Cup Way to Lauzon Road. It has a two-lane cross-section with sidewalks on both sides of the road. The current speed limit along this road is 50km/h.

Figure 3 illustrates the existing traffic control and lane configuration at the Lauzon Road and Spitfire Way intersection.

Figure 3: Existing Intersection Geometry and Traffic Control



2.2 EXISTING TRANSIT NETWORK

Transit service in the study area is operated by Transit Windsor. One route passes through the study area:

Route 10 travels in a loop around the east end of Windsor starting and ending at the Tecumseh Mall Terminal. The route operates at 35-minute headways on weekdays and 70-minute headways on Saturdays. No Sunday or holiday service is available. The closest stop to the subject site is located on Spitfire Way, immediately east of Bowler Drive. This stop is only operable from Monday to Friday until 5:00 PM, when the intermittent service route past the WFCU Centre is active.

The Tecumseh Mall Terminal is in the north end of the mall at the northwest corner of Lauzon Road and Tecumseh Road East. The nearest entrance is approximately 200 metres south of Spitfire Way. The terminal serves the following transit routes:

- Route 1C, east and westbound.
- Route 2
- Route 4, east and westbound
- Route 10, north and southbound
- Route 418X
- Route 518X

The City of Windsor has plans to relocate the Tecumseh Mall Terminal to the northwest corner of Lauzon Parkway and Tecumseh Road West. The new location would be approximately 1 kilometre from Spitfire Way.

2.3 EXISTING TRAFFIC VOLUMES

Existing weekday AM and PM traffic volumes at Spitfire Way and Lauzon Road were provided by the City of Windsor. The counts were collected on Wednesday September 14th, 2022. Saturday and Sunday counts were collected by Dillon on June 14th and 15th 2025, respectively.

The existing AM and PM peak hour traffic volumes are presented in **Figure 4** and the existing Saturday and Sunday mid-day peak hour traffic volumes are shown in **Figure 5**. The detailed turning movement count data are provided in **Appendix B**.

Figure 4: Weekday Existing Traffic Volumes

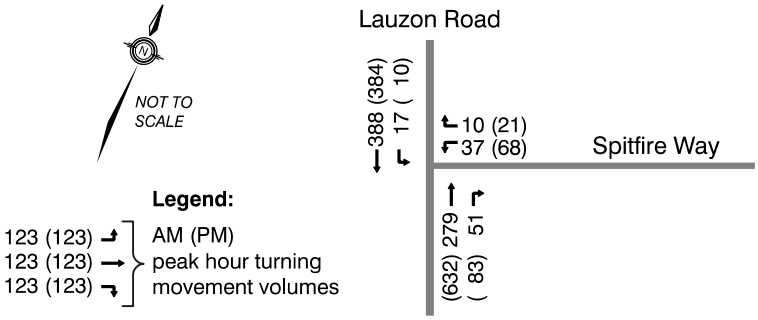
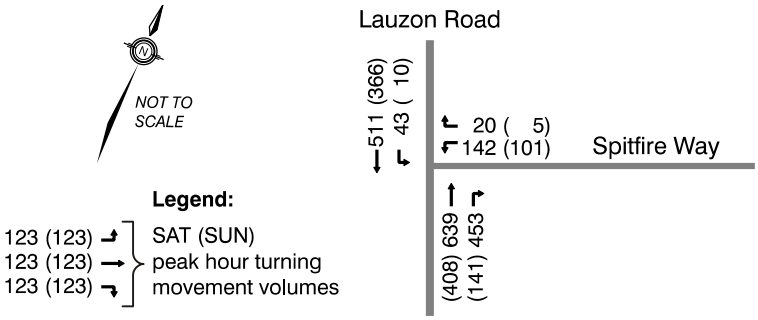


Figure 5: Weekend Existing Traffic Volumes



2.4 EXISTING PEDESTRIAN AND CYCLING ACTIVITY

Pedestrians and cyclist volumes were recorded as part of the traffic surveys undertaken. **Table 1** and **Table 2** document the number of pedestrian crossings at each intersection during the weekday and weekend hours, respectively.

Table 3 documents the number of cyclists crossings at each intersection during the weekday peak hours. Cyclists were not observed during the weekend peak hours.

Table 1: Weekday Existing Pedestrian Activity

INTERSECTION	AM PEAK HOUR				PM PEAK HOUR			
	North leg	South leg	East leg	Total	North leg	South leg	East leg	Total
Lauzon Road and Spitfire Way	0	1	2	**3**	0	3	1	**4**

Table 2: Weekend Existing Pedestrian Activity

INTERSECTION	SATURDAY PEAK HOUR				SUNDAY PEAK HOUR			
	North leg	South leg	East leg	Total	North leg	South leg	East leg	Total
Lauzon Road and Spitfire Way	4	10	4	**18**	2	3	3	**8**

Table 3: Weekday Existing Cyclist Activity

INTERSECTION	AM PEAK HOUR				PM PEAK HOUR			
	North leg	South leg	East leg	Total	North leg	South leg	East leg	Total
Lauzon Road and Spitfire Way	0	1	1	**2**	0	2	0	**2**

Minimal pedestrian and cyclist volumes were observed at the study area intersections during the weekday peak hours. There were more pedestrians observed during the weekend, with the majority of them occurring during the Saturday mid-day peak hour.

3.0 FUTURE BACKGROUND CONDITIONS

This section establishes the magnitude of traffic growth under future background conditions (i.e., traffic volumes that are forecasted without the proposed development in place).

Two horizon years have been assessed:

- 2030, corresponding to the anticipated build-out year; and
- 2035, corresponding to five years after the anticipated build-out year.

3.1 BACKGROUND TRAFFIC GROWTH

As discussed with City staff, a growth rate of 1.5% per annum was applied to the existing traffic volumes. The background growth rate was applied to all movements at the study area intersection.

3.2 BACKGROUND DEVELOPMENT TRAFFIC

3.2.1 1460 Lauzon Road

The City of Windsor identified 1460 Lauzon Road as a development to consider for background development traffic. This background development is located on the southeast corner of the Lauzon Line/McHugh Avenue and Lauzon Road intersection. The development is proposed to have two seven-storey buildings and one six-storey building, with a total of 291 residential dwelling units. Dillon previously completed a TIS for this development in September 2022, and a subsequent addendum in October 2023. The projected weekday AM and PM, and Saturday mid-day peak hour site traffic volumes at Lauzon Road and Spitfire Way were obtained from the 2023 addendum. The Sunday mid-day peak hour was not previously analyzed; therefore, the site traffic volumes were estimated based on the trip generation rates published ITE in the *Trip Generation Manual,* 11th edition. The same ITE Land Use Code (221), distribution, and assignment was used as in the 2023 addendum. **Table 4** and **Table 5** summarize the number of vehicle trips anticipated to be generated by the development during the weekday and weekend peak hours, respectively.

Table 4: 1460 Lauzon Road Weekday Trip Generation

	AM PEAK HOUR			PM PEAK HOUR		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 370 dwelling units						
In/Out/Rate	23%	77%	0.37	61%	39%	0.39
Vehicle trips	**25**	**83**	**108**	**69**	**44**	**113**

Table 5: 1460 Lauzon Road Weekend Trip Generation

	SATURDAY PEAK HOUR			SUNDAY PEAK HOUR [1]		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 291 dwelling units						
In/Out/Rate	51%	49%	0.39	55%	55%	[1]
Vehicle trips	**58**	**55**	**113**	**50**	**42**	**92**

[1] T = 0.24 (X) + 21.51

The 1460 Lauzon Road development is anticipated to generate 108 vehicle trips (25 inbound, 83 outbound) during the AM peak hour, 113 (69 inbound, 44 outbound) during the PM peak hour, 113 vehicle trips (58 inbound, 55 outbound) during the Saturday peak hour and 92 vehicle trips (50 inbound, 42 outbound) during the Sunday peak hour.

3.2.2 Rosewater Estates Buildings 'E' and 'F'

A previous TIS was prepared by Dillon in August 2021 for the Rosewater Estates residential development (Buildings 'E' and 'F') location at 1530 and 1624 Lauzon Road. In the 2023 addendum that followed, the proposed development statistics were updated to have two nine-storey residential buildings, with a total of 370 dwelling units. The projected weekday AM and PM peak hour site traffic was obtained from the 2023 addendum. The Saturday and Sunday mid-day peak hour site traffic was estimated using ITE Land Use Code 221 ('Multifamily Housing (Mid-Rise)'). The projected site trips during the weekday and weekend peak hours are shown in **Table 6** and **Table 7**, respectively.

Table 6: Rosewater Estates Buildings 'E' and 'F' Weekday Trip Generation

	AM PEAK HOUR			PM PEAK HOUR		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 370 dwelling units						
In/Out/Rate	23%	77%	0.37	61%	39%	0.39
Vehicle trips	**35**	**116**	**151**	**88**	**57**	**145**

Table 7: Rosewater Estates Buildings 'E' and 'F' Weekend Trip Generation

	SATURDAY PEAK HOUR			SUNDAY PEAK HOUR		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 370 dwelling units						
In/Out/Rate	51%	49%	[1]	55%	45%	[1]
Vehicle trips	**76**	**73**	**149**	**61**	**49**	**110**

[1] Saturday: Ln(T) = 1.00 Ln(X) – 0.91; Sunday: T = 0.24 (X) + 21.51

Buildings 'E' and 'F' are expected to generate 151 vehicle trips (35 inbound, 116 outbound) during the AM peak hour, 145 (88 inbound, 57 outbound) during the PM peak hour, 149 vehicle trips (76 inbound, 73 outbound) during the Saturday peak hour, and 110 vehicle trips (61 inbound, 49 outbound) during the Sunday peak hour.

It was determined in the 2023 addendum that the subject site of this TIS (0 Spitfire Way) would provide additional off-site satellite parking for Building 'E' and Building 'F.' The updated assignment due to the development of the satellite parking lot is detailed in **Section 4.5**.

3.3 FUTURE BACKGROUND TRAFFIC VOLUMES

The future weekday and weekend background traffic volumes during 2030 and 2035 are presented in **Figure 6** to **Figure 9**.

Figure 6: Weekday Future Background Traffic Volumes (2030)

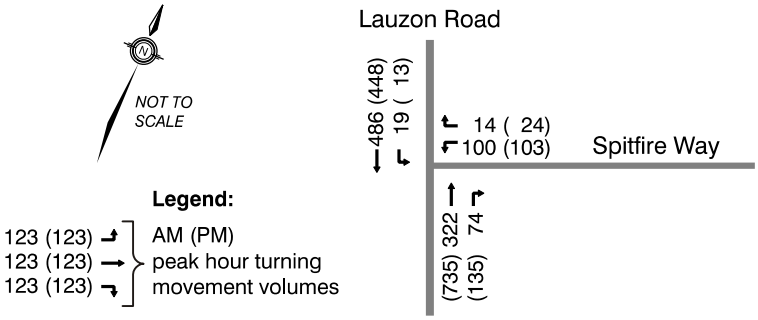


Figure 7: Weekend Future Background Traffic Volumes (2030)

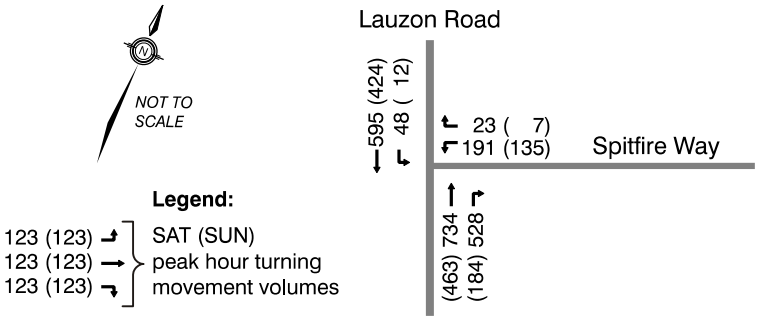


Figure 8: Weekday Future Background Traffic Volumes (2035)

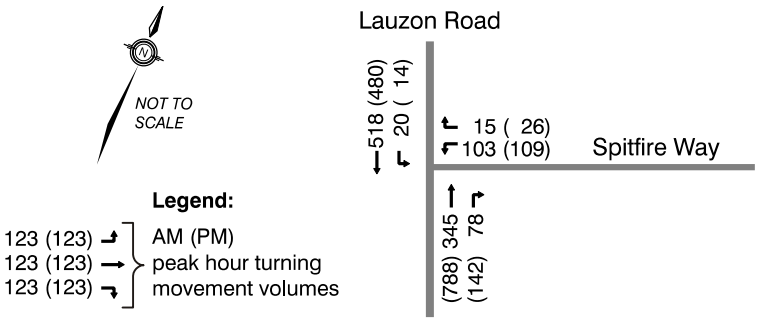
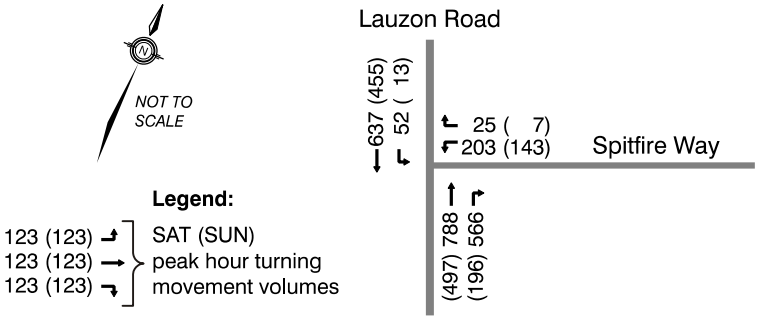


Figure 9: Weekend Future Background Traffic Volumes (2035)



4.0 TOTAL FUTURE CONDITIONS

4.1 PROPOSED DEVELOPMENT

The development is proposed to have two six-storey apartment buildings (Buildings 'G' and 'H'), each with 61 dwelling units and 90 m^2 (969 sq. ft.) of ground floor commercial space. The site will have parking designated for the mixed-use buildings, as well as a satellite parking lot for the separate Rosewater Estates residential development (Buildings 'E' and 'F') on the north side of Spitfire Way. Two site driveways are proposed along Spitfire Way.

4.2 SITE TRIP GENERATION

Trips generated by the proposed residential development were estimated based on trip generation rates published by ITE in the *Trip Generation Manual*, 11th edition. The trips generated by the two apartment buildings are based on ITE land use code 221 ("Multifamily Housing (Mid-Rise)").

The commercial spaces are expected to be a small retail store, and a café. The trips generated by the commercial spaces are based on ITE land use code 936 ("Coffee/Donut shop without Drive-Through Window") and 822 ("Strip Retail Plaza"). The trip rates for the "Coffee/Donut shop without Drive-Through Window" are likely to be conservative in estimating trip rates for the planned café. The referenced ITE pages are provided in **Appendix C**; however, some of these values are slightly different from the values in the ITE trip generation web-based app, which was used in the analysis.

To estimate existing modal splits in the Windsor area, the 2019 Active Transportation Master Plan was reviewed. The 2041 target mode shares for various areas within the city of Windsor are outlined in the plan. For newer communities, the target non-auto mode share was identified as 14%.

Given the location of the development and the land use proposed, the non-auto mode share (14%) was broken down as follows:

- 5% for transit;
- 5% for walking; and
- 4% for cycling.

The non-auto trips were added to the vehicle trips. **Table 8** and **Table 9** summarize the weekday and weekend trip generation for the site.

Table 8: Weekday Trip Generation

	SATURDAY PEAK HOUR			SUNDAY PEAK HOUR		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 61 dwelling units (Building 'G')						
In/Out/Rate	23%	77%	[1]	61%	39%	[1]
Vehicle trips	**4**	**12**	**16**	**15**	**10**	**25**
Multifamily Housing (Mid-Rise) – 61 dwelling units (Building 'H')						

	SATURDAY PEAK HOUR			SUNDAY PEAK HOUR		
	In	Out	Total	In	Out	Total
In/Out/Rate	23%	77%	[1]	61%	39%	[1]
Vehicle trips	**4**	**12**	**16**	**15**	**10**	**25**
Strip Retail Plaza (<40k) – 969 sq. ft. (Building 'G')						
In/Out/Rate	60%	40%	[2]	50%	50%	[2]
Vehicle trips	**4**	**2**	**6**	**8**	**7**	**15**
Coffee/Donut Shop without Drive-Through Window – 969 sq. ft. (Building 'H')						
In/Out/Rate	51%	49%	93.08	50%	50%	32.29
Vehicle trips	**46**	**44**	**90**	**16**	**15**	**31**
Total vehicle trips	**58**	**70**	**128**	**54**	**42**	**96**
Total person trips	**67**	**81**	**148**	**63**	**49**	**112**

[1] AM: T = 0.44 (X) – 11.61; PM T = 0.39 (X) + 0.34

[2] AM: Ln(T) = 0.66 Ln(X) + 1.84; PM = Ln(T) = 0.71 Ln(X) + 2.72

Table 9: Weekend Trip Generation

	SATURDAY PEAK HOUR			SUNDAY PEAK HOUR		
	In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) – 61 dwelling units (Building 'G')						
In/Out/Rate	51%	49%	[1]	55%	45%	[1]
Vehicle trips	**13**	**12**	**25**	**20**	**16**	**36**
Multifamily Housing (Mid-Rise) – 61dwelling units (Building 'H')						
In/Out/Rate	51%	49%	[1]	55%	45%	[1]
Vehicle trips	**13**	**12**	**25**	**20**	**16**	**36**
Strip Retail Plaza (<40k) – 969 sq. ft. (Building 'G')						
In/Out/Rate	51%	49%	6.57	51%	49%	4.98[2]
Vehicle trips	**3**	**3**	**6**	**3**	**2**	**5**
Coffee/Donut Shop without Drive-Through Window – 969 sq. ft. (Building 'H')						
In/Out/Rate	49%	51%	56.50	51%	49%	40.59[2]
Vehicle trips	**27**	**28**	**55**	**20**	**19**	**39**
Total vehicle trips	**56**	**55**	**111**	**63**	**53**	**116**
Total person trips	**65**	**64**	**129**	**73**	**62**	**135**

[1] Saturday: Ln(T) = 1.00 Ln(X) – 0.91; Sunday: T = 0.24 (X) + 21.51

[2] Sunday rates for the two commercial components were not provided by ITE. These were estimated by comparing the ratio between Saturday and Sunday rates that were available for similar land uses.

The proposed development is anticipated to generate 128 vehicle trips (58 inbound, 70 outbound) during the AM peak hour, 96 vehicle trips (54 inbound, 42 outbound) during the PM peak hour, 111 vehicle trips

(56 inbound, 55 outbound) during the Saturday peak hour, and 116 (63 inbound, 53 outbound) during the Sunday peak hour.

When considering a 14% non-auto mode share, the proposed residential development is projected to generate 148 total trips (i.e., person trips) during the AM peak hour, 112 total trips during the PM peak hour, 129 total trips during the Saturday peak hour, and 135 total trips during the Sunday peak hour.

4.3 SITE TRIP DISTRIBUTION

The vehicles generated by the proposed development were distributed to the road network based on existing travel patterns and attractiveness of various travel routes.

The following trip distribution was used for all peak hours:

- 30% to/from the north via Lauzon Road;
- 5% to/from the north via Bowler Drive;
- 20% to/from the east via Spitfire Way; and
- 45% to/from the south via Lauzon Road.

4.4 SITE TRIP ASSIGNMENT

Figure 10 and **Figure 11** illustrate how the vehicle trips generated by the development were distributed and assigned through the study area intersections during the weekday and weekend peak hours, respectively.

Figure 10: Weekday Site Traffic

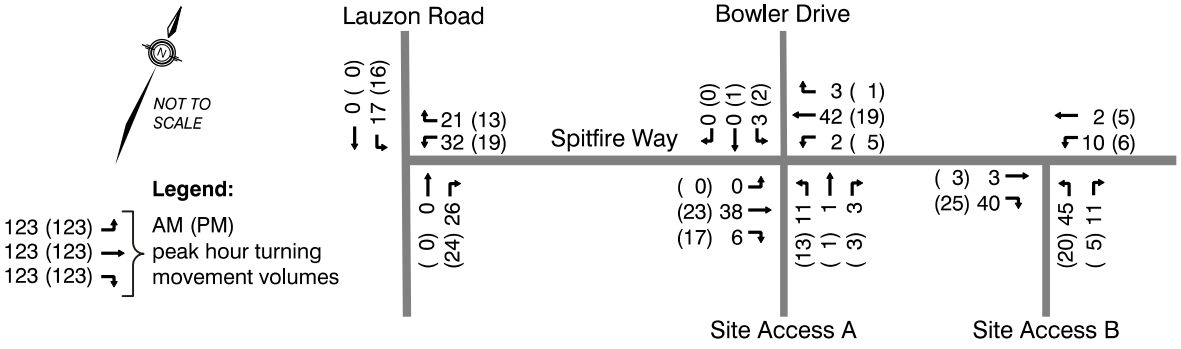
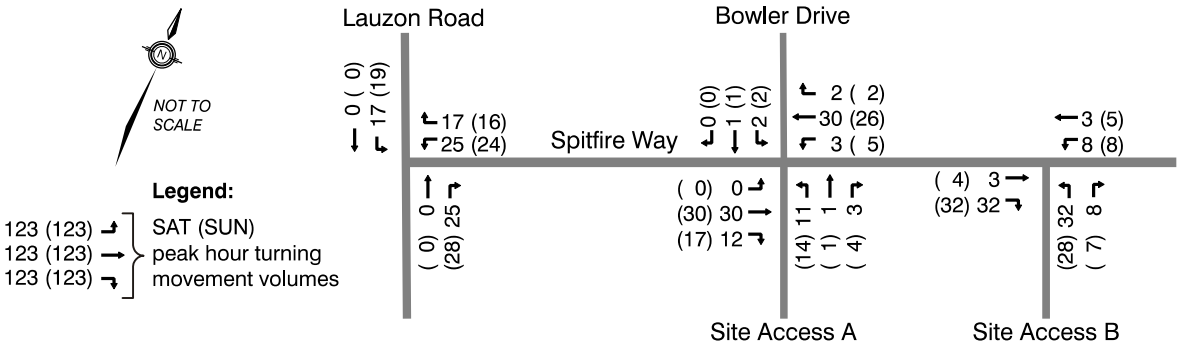


Figure 11: Weekend Site Traffic



4.5 SATELLITE PARKING TRAFFIC

The 2023 Rosewater Estates analysis, outlined in **Section 3.2.2**, had not accounted for the satellite parking lot in the site trip assignment. Therefore, the assignment was updated and a proportion of the trips that were previously assigned to their on-site parking were reassigned to the satellite parking lot. The trips that are expected to use the satellite parking lot for Buildings 'E' and 'F' were estimated by comparing the proportion of satellite parking to on-site parking. According to the Rosewater Estates 2023 addendum, there will be 318 on-site parking spaces and the proposed site plan for the subject site shows 181 satellite parking spaces, resulting in a total of 499 spaces. It was assumed that approximately 35% of the Building 'E' and Building 'F' trips would be diverted from the on-site parking to the satellite parking once the subject site is built out. **Figure 12** and **Figure 13** depict the change in assignment for the Rosewater Estates Building 'E' and Building 'F' site trips due to the satellite parking lot for the weekday and weekend peak hours, respectively.

Figure 12: Weekday Satellite Parking Trips

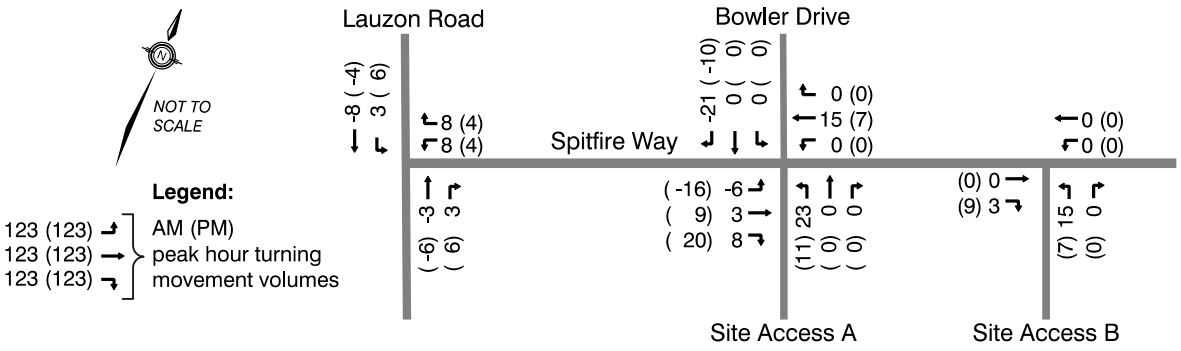
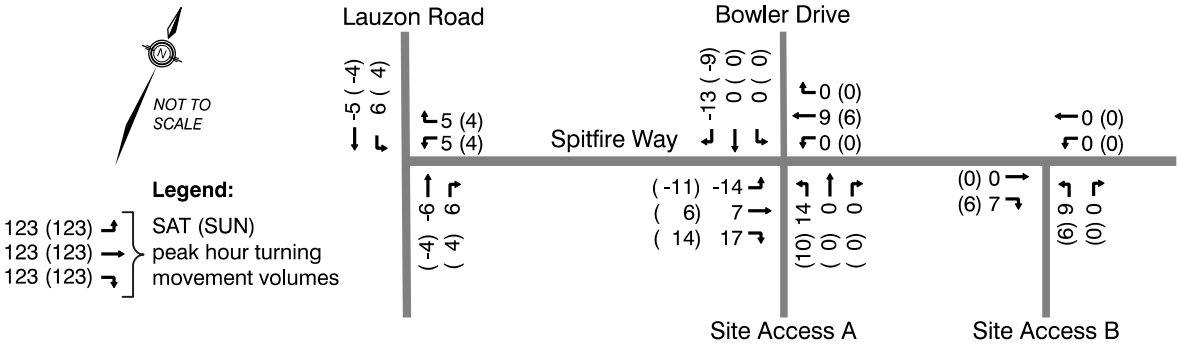


Figure 13: Weekend Satellite Parking Trips



4.6 TOTAL FUTURE TRAFFIC VOLUMES

The total future traffic volumes were calculated by adding the site trips to the future background traffic volumes. The weekday and weekend total future traffic volumes during 2030 and 2035 are presented in **Figure 14** to **Figure 17**.

Figure 14: Weekday Total Future Volumes (2030)

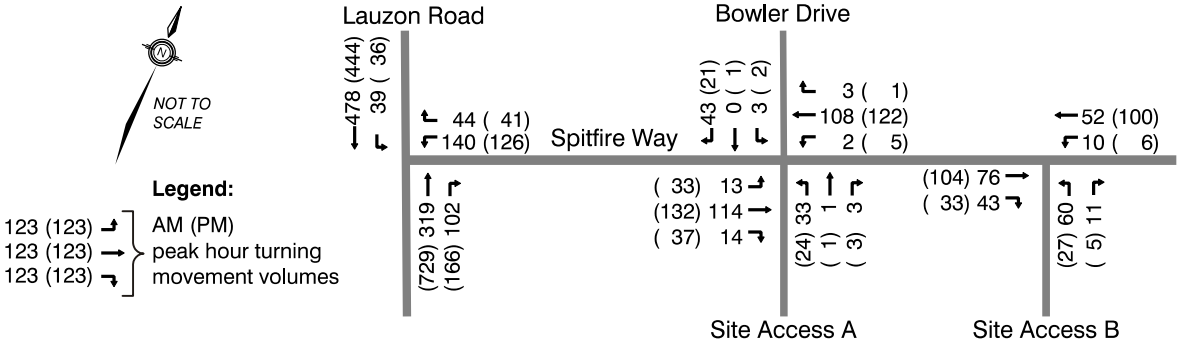


Figure 15: Weekend Total Future Volumes (2030)

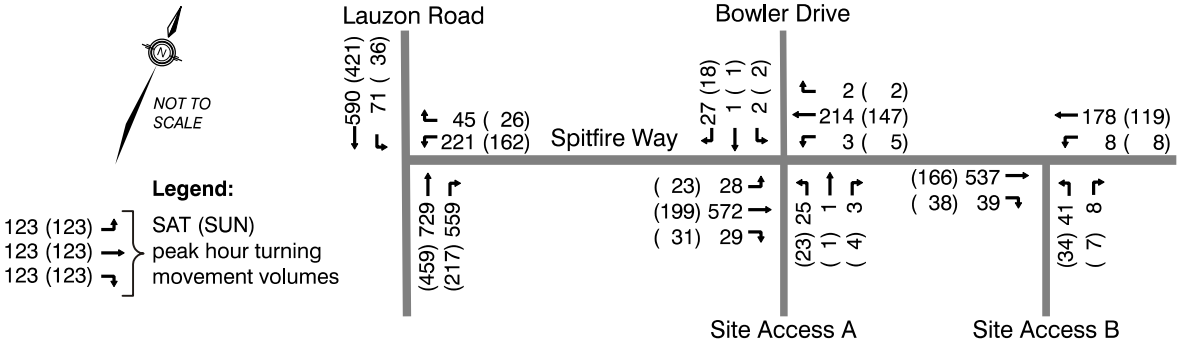


Figure 16: Weekday Total Future Volumes (2035)

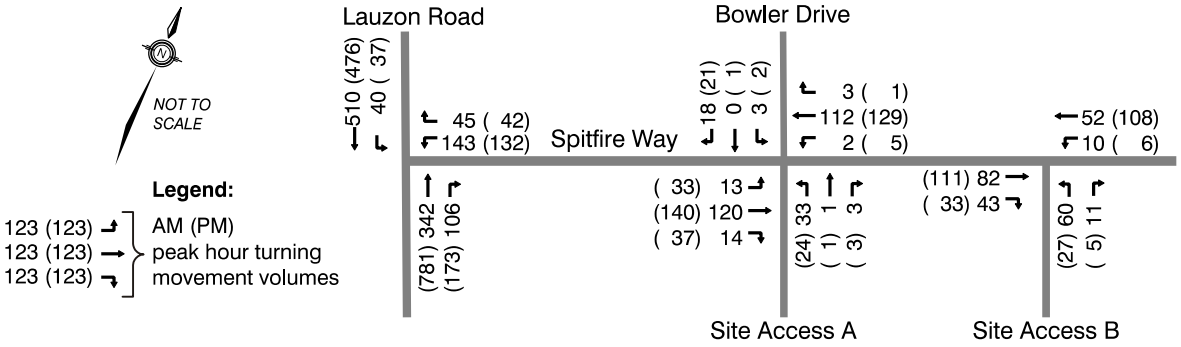
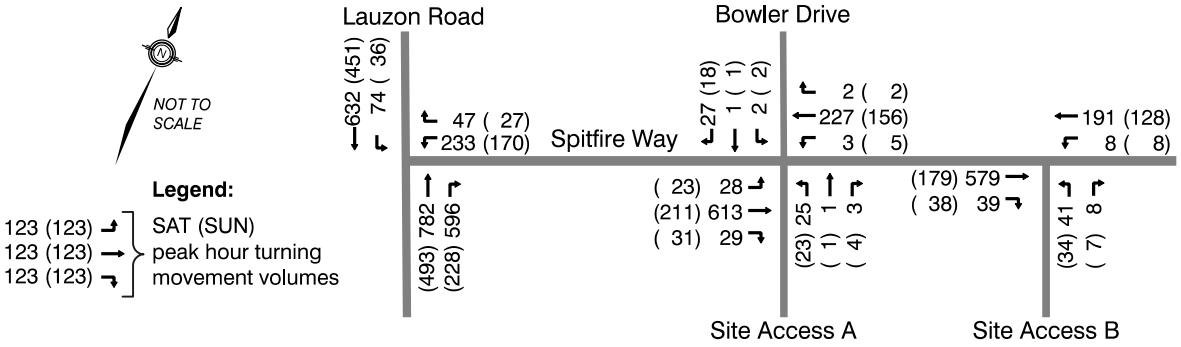


Figure 17: Weekend Total Future Volumes (2035)



5.0 INTERSECTION OPERATIONS

Intersection operational analyses were completed for the study area intersections using Trafficware's Synchro software (version 11). At the study area intersections, the volume-to-capacity (v/c) ratio, delay, level of service and 95th percentile queue were noted for any stop-controlled movements or for any movements were an exclusive left-turn lane is present. Level of service (LOS) definitions are provided in **Appendix D**. The Synchro analysis worksheets reports are provided in **Appendix E**.

At each intersection, critical movements were identified. Critical movements are defined by the City of Windsor as:

- Any individual movement at a signalized intersection operating at a v/c ratio of 0.85 or greater;
- An exclusive turning movement at a signalized intersection operating at a v/c ratio of 1.0 or greater;
- Any individual movement at a signalized intersection operating at LOS F;
- Any individual movement at an unsignalized intersection operating at LOS E or worse; and
- Any turning movement where the calculated 95th percentile queue exceeds the available storage length.

The analyses reflect the existing lane configurations and traffic signal timings obtained from the City of Windsor.

5.1 LAUZON ROAD AT SPITFIRE WAY

Table 10 and **Table 11** summarize the existing and future operations for the Lauzon Road and Spitfire Way intersection during the weekday and weekend peak hours, respectively.

Table 10: Weekday Intersection Operations, Lauzon Road and Spitfire Way

MOVEMENT	AM PEAK HOUR				PM PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Existing								
WB left	0.14	B	18.9	10	0.25	C	20.8	15
WB right	0.04	B	10.7	3	0.08	A	9.2	5
NB through	0.13	A	2.2	9	0.29	A	3.7	25
SB left	0.16	A	2.5	13	0.16	A	3.5	14
Overall	—	**A**	**3.3**	—	—	**A**	**4.7**	—
Future background (2030)								
WB left	0.33	B	19.5	19	0.34	C	21.0	20
WB right	0.05	A	8.6	3	0.08	A	8.2	5
NB through	0.19	A	4.1	14	0.39	A	5.4	36

MOVEMENT	AM PEAK HOUR				PM PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
SB left	0.25	A	5.0	20	0.22	A	4.7	18
Overall	—	**A**	**6.2**	—	—	**A**	**6.3**	—
Total future (2030)								
WB left	0.41	B	19.6	23	0.39	C	21.1	23
WB right	0.13	A	6.2	6	0.13	A	6.9	6
NB through	0.21	A	4.4	15	0.41	A	5.8	39
SB left	0.27	A	5.9	23	0.25	A	5.3	21
Overall	—	**A**	**7.0**	—	—	**A**	**6.9**	—
Future background (2035)								
WB left	0.33	B	19.5	19	0.35	C	21.0	21
WB right	0.05	A	8.6	4	0.08	A	8.0	5
NB through	0.20	A	4.2	15	0.42	A	5.7	39
SB left	0.27	A	5.2	22	0.23	A	4.9	20
Overall	—	**A**	**6.2**	—	—	**A**	**6.5**	—
Total future (2035)								
WB left	0.42	B	19.6	24	0.40	C	21.2	24
WB right	0.14	A	6.2	6	0.13	A	6.7	6
NB through	0.22	A	4.6	16	0.44	A	6.1	43
SB left	0.29	A	6.0	25	0.27	A	5.5	23
Overall	—	**A**	**7.1**	—	—	**A**	**7.1**	—

Table 11: Weekend Intersection Operations, Lauzon Road and Spitfire Way

MOVEMENT	SATURDAY PEAK HOUR				SUNDAY PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Existing								
WB left	0.42	C	21.1	25	0.33	C	21.0	20
WB right	0.06	A	7.9	4	0.02	B	11.2	2
NB through	0.50	A	4.6	36	0.25	A	3.9	18
SB left	0.30	A	5.8	25	0.17	A	4.5	15

MOVEMENT	SATURDAY PEAK HOUR				SUNDAY PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Overall	**—**	**A**	**6.3**	**—**	**—**	**A**	**5.8**	**—**
Future background (2030)								
WB left	0.50	C	21.3	31	0.41	C	21.2	24
WB right	0.06	A	7.0	4	0.02	A	9.6	3
NB through	0.65	A	7.1	54	0.30	A	4.5	23
SB left	0.42	A	7.8	34	0.21	A	5.1	19
Overall	**—**	**A**	**8.6**	**—**	**—**	**A**	**6.6**	**—**
Total future (2030)								
WB left	0.54	C	21.3	34	0.46	C	21.3	27
WB right	0.11	A	5.5	6	0.08	A	7.1	5
NB through	0.68	A	7.7	58	0.32	A	4.6	24
SB left	0.52	A	9.7	41	0.24	A	5.8	21
Overall	**—**	**A**	**9.6**	**—**	**—**	**A**	**7.1**	**—**
Future background (2035)								
WB left	0.52	C	21.3	32	0.42	C	21.2	25
WB right	0.07	A	6.5	4	0.02	A	9.4	2
NB through	0.70	A	8.4	65	0.32	A	4.8	26
SB left	0.49	A	8.8	40	0.23	A	5.4	20
Overall	**—**	**A**	**9.7**	**—**	**—**	**A**	**6.8**	**—**
Total future (2035)								
WB left	0.55	C	21.3	36	0.47	C	21.3	28
WB right	0.11	A	5.3	6	0.08	A	6.9	5
NB through	0.73	A	9.5	72	0.34	A	5.0	27
SB left	0.58	B	11.0	47	0.26	A	6.0	23
Overall	**—**	**B**	**11.0**	**—**	**—**	**A**	**7.3**	**—**

The intersection is currently operating at LOS A overall during all peak hours. All movements are operating well, with v/c ratios under the critical movement threshold of 0.85.

Under 2030 and 2035 future background conditions, the intersection is anticipated to operate at a good overall level of service (LOS A) during all peak hours. No critical movements are expected, with all movements operating with v/c ratios less than 0.85. Queues are not expected to exceed the available storage lengths.

With the addition of site traffic, the intersection is expected to still operate at a good overall level of service (LOS A-B) during all peak hours. All movements are expected to operate within capacity and with no queuing concerns.

5.2 SITE ACCESS A / BOWLER DRIVE TO SPITFIRE WAY

Table 12 and **Table 13** summarize the future operations for the Site Access A / Bowler Drive and Spitfire Way intersection.

Table 12: Weekday Intersection Operations, Site Access A / Bowler Drive and Spitfire Way

MOVEMENT	AM PEAK HOUR				PM PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Total future (2030)								
NB approach	0.07	B	11.3	1.7	0.05	B	11.8	1.4
SB approach	0.05	A	9.2	1.4	0.03	A	9.3	0.8
Total future (2035)								
NB approach	0.06	B	11	1.6	0.06	B	12	1.4
SB approach	0.03	A	9.2	0.6	0.03	A	9.4	0.8

Table 13: Weekend Intersection Operations, Site Access A / Bowler Drive and Spitfire Way

MOVEMENT	SATURDAY PEAK HOUR				SUNDAY PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Total future (2030)								
NB approach	0.13	C	22.6	3.6	0.06	B	12.5	1.5
SB approach	0.05	B	10.7	1.2	0.03	A	9.6	0.7
Total future (2035)								
NB approach	0.14	C	24.5	4	0.06	B	12.7	1.5
SB approach	0.05	B	10.9	1.3	0.03	A	9.7	0.7

Under 2030 conditions, the stop-controlled northbound and southbound approaches are expected to operate at good levels of service (LOS A–B) during all peak hours. By 2035, the northbound approach is projected to operate at a reasonable level of service (LOS C) during the Saturday peak hour. Minimal delays and queues are expected.

5.3 SITE ACCESS B TO SPITFIRE WAY

Table 14 and **Table 15** summarize the future operations for the Site Access B and Spitfire Way intersection during the weekday and weekend peak hours, respectively.

Table 14: Weekday Intersection Operations, Site Access B and Spitfire Way

MOVEMENT	AM PEAK HOUR				PM PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Total future (2030)								
NB approach	0.09	A	9.8	2.5	0.04	A	10	1.1
Total future (2035)								
NB approach	0.09	A	9.9	2.5	0.05	B	10.1	1.1

Table 15: Weekend Intersection Operations, Site Access B and Spitfire Way

MOVEMENT	SATURDAY PEAK HOUR				SUNDAY PEAK HOUR			
	v/c	LOS	Delay (s/veh)	95th %ile queue (m)	v/c	LOS	Delay (s/veh)	95th %ile queue (m)
Total future (2030)								
NB approach	0.15	C	16.6	4.1	0.07	B	10.7	1.7
Total future (2035)								
NB approach	0.16	C	17.7	4.5	0.07	B	10.9	1.8

Under 2030 and 2035 total future conditions, the stop-controlled northbound approach is anticipated to operate at a good level of service (LOS A-B) during the weekday and Sunday peak hours. During the Saturday peak hour, the northbound approach is expected to operate at LOS C. Delays and queues are projected to be minimal.

6.0 ACTIVE TRANSPORTATION AND TRANSIT CONNECTIVITY

The proposed concept plan, provided in **Appendix A**, shows pathways connecting each Building 'G' and Building 'H' to the sidewalk on the south side of Spitfire Way. There is also a pathway shown connecting the accessible satellite parking spaces to the sidewalk. These pathways would provide connectivity to the active transportation facilities and the nearby transit stops. There will be increased pedestrian activity on the east crosswalk of the Lauzon Road and Spitfire Way intersection due to Building 'E' and Building 'F' residents using the satellite parking lot. The increased pedestrian activity is not expected to have any notable impacts on the operations of the intersection. A separate pedestrian cross-over (PXO) on Spitfire Way to the west of Bowler Drive was considered; however, due to the proximity to the existing crosswalk at Lauzon Road (less than 100 metres away), it is not recommended.

7.0 SUMMARY

Dillon Consulting Limited (Dillon) has been retained by Farhi Holdings Corporation to undertake a transportation impact study to review the impact of a proposed residential mixed use development in the city of Windsor. The proposed residential development is located at 0 Spitfire Way.

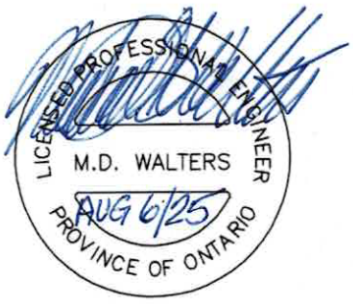
The development is proposed to have two six-storey apartment buildings (Buildings 'G' and 'H'), each with 61 dwelling units and 90 m^2 (969 sq. ft.) of ground floor commercial space. The site will have parking designated for the mixed-use buildings, as well as a satellite parking lot for the separate Rosewater Estates residential development (Buildings 'E' and 'F') on the north side of Spitfire Way. Two site accesses are proposed via Spitfire Way.

The proposed development is anticipated to generate 128 vehicle trips (58 inbound, 70 outbound) during the AM peak hour, 96 vehicle trips (54 inbound, 42 outbound) during the PM peak hour, 111 vehicle trips (56 inbound, 55 outbound) during the Saturday peak hour, and 116 (63 inbound, 53 outbound) during the Sunday peak hour.

The Lauzon Road and Spitfire Way intersection is expected to continue to operate at a good overall level of service (LOS A–B) during all peak hours, with no critical movements, or queuing concerns.

The northbound stop-controlled movements at both proposed site accesses along Spitfire Way are expected to operate well (LOS A–B) during the weekday and Sunday peak hours. During the Saturday peak hour, the northbound approach is projected to operate reasonably at LOS C. Minimal delays and queues are expected for both site accesses.

The development is proposed to have pathways from Building 'G' and Building 'H' that connect to Spitfire Way. There is also a pathway shown connecting the accessible satellite parking spaces to the sidewalk. These pathways would provide connectivity to the active transportation facilities and the nearby transit stops providing connectivity to the active transportation and transit facilities nearby. The existing crosswalk on the east leg of the Lauzon Road and Spitfire Way intersection is expected to have increased pedestrian activity due to the Rosewater Estates Building 'E' and Building 'F' residents using the satellite parking lot.



Mike Walters, P.Eng.
Transportation Engineer

APPENDIX A

Development Concept Plan

2 - 6 STOREY 61 UNIT APARTMENT BUILDINGS
TOTAL UNITS: **122 UNITS**

BUILDINGS E & F SITE PARKING INFORMATION

ON GRADE PARKING	= 233 SPACES
BELOW GRADE PARKING	= 142 SPACES
TOTAL ON SITE PARKING	= 375 SPACES

BUILDINGS G & H SITE PARKING INFORMATION

BUILDING E & F SATELLITE PARKING	= 181 SPACES
BUILDINGS G & H RESIDENTIAL PARKING	= 184 SPACES
BUILDINGS G & H COMMERCIAL PARKING	= 8 SPACES
TOTAL ON SITE PARKING	= 373 SPACES

PROPERTY SIZE = **4.87 TOTAL ACRES**

LEGEND

TOTAL BUILDING E AND F PARKING =181 SPACES
BUILDING E SATELLITE PARKING @ (1.50 ratio) = 89 SPACES
BUILDING F SATELLITE PARKING @ (1.50 ratio) = 92 SPACES
BF PARKING STALLS PROVIDED = 3 TYPE A + 4 TYPE B

TOTAL BUILDING G PARKING @ (1.5 ratio) = 92 SPACES
STANDARD STALLS = 72 SPACES
ENCLOSED GARGAE STALLS = 20 SPACES
BF PARKING STALLS PROVIDED = 2 TYPE A + 2 TYPE B

TOTAL BUILDING H PARKING @ (1.5 ratio) = 92 SPACES
STANDARD STALLS = 72 SPACES
ENCLOSED GARGAE STALLS = 20 SPACES
BF PARKING STALLS PROVIDED = 2 TYPE A + 2 TYPE B

TOTAL BUILDING G AND H PARKING =184 SPACES

TOTALCOMMERCIAL PARKING BUILDINGS G/H
APARTMENT G COMMERCIAL AREA= 90 m²
APARTMENT H COMMERCIAL AREA= 90 m²
TOTAL AREA: 180 m² @ (22.5 m² / Space) =8 SPACES

TOTAL PARKING SPACES = 373 SPACES

LAUZON RD & SPITFIRE WAY - SITE PLAN CONCEPT B R3

SCALE: 1/64" = 1'-0"

ROSEWATER ESTATES APARTMENTS G & H

23-024 | BAIRD|AE architecture + engineering | SPC-1

2025-07-15 1:24:54 PM

B:\Projects\^2023 Projects\23-024 - FHC Building G - RosewaterARCHITECTURE\2.0_Preliminary_design\2.2_Planning-Site plan_2_Site DesignRo...R2.rvt

APPENDIX B

Traffic Data and Signal Timings

Ontario Traffic Inc.
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Project #22-074 - City of Windsor

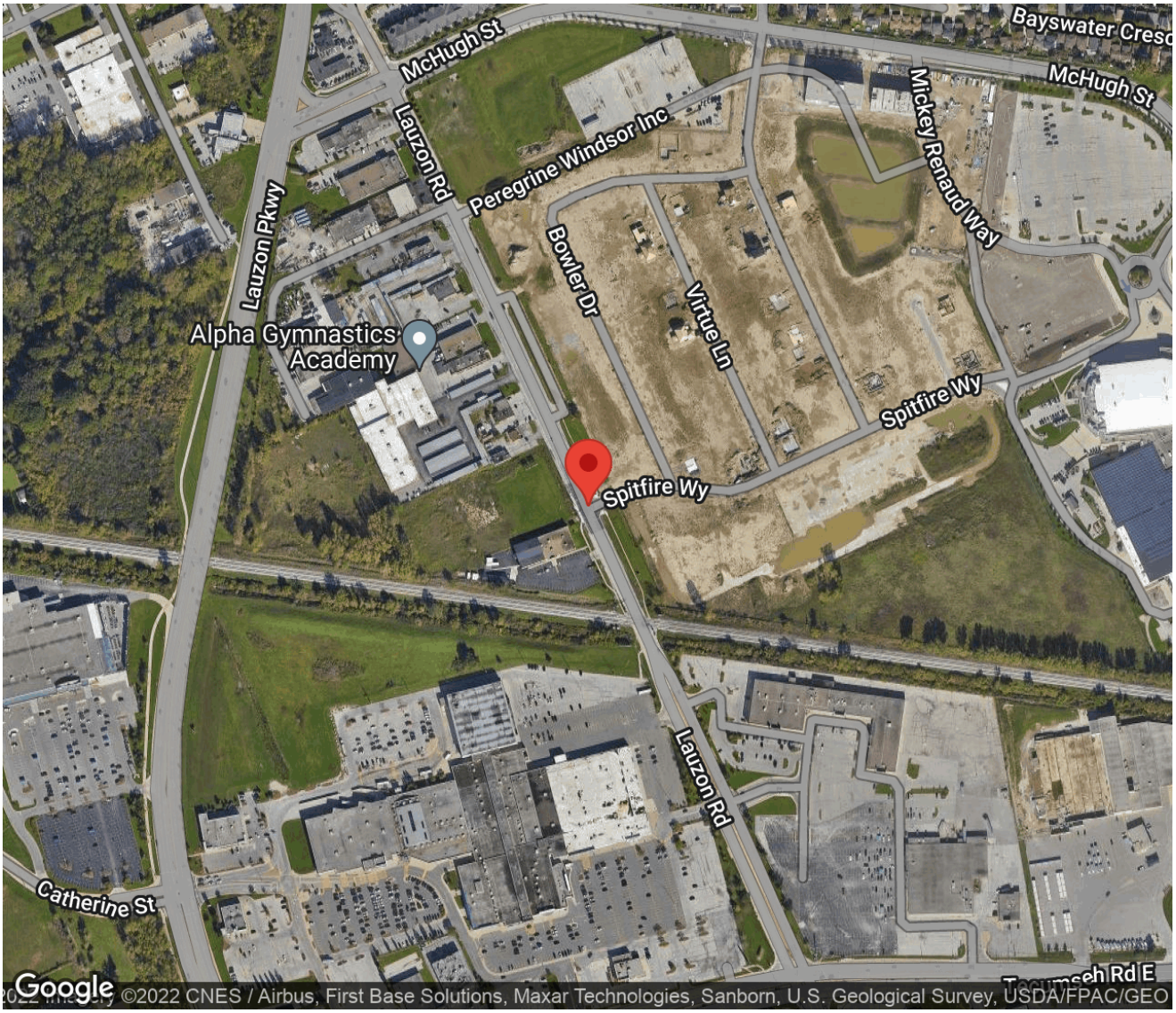
Intersection Count Report

Intersection:	LAUZON ROAD & SPITFIRES WAY
Municipality:	Windsor
Count Date:	Wednesday, Sep 14, 2022
Site Code:	2207400001
Count Categories:	Cars, Medium Trucks, Heavy Trucks, Peds, Bicycles
Count Period:	07:00-10:00, 11:00-14:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	LAUZON ROAD & SPITFIRES WAY
Site Code:	2207400001
Municipality:	Windsor
Count Date:	Sep 14, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

LAUZON ROAD - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Medium Trucks, Heavy Trucks, Bicycles						Includes Cars, Medium Trucks, Heavy Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	14	316	0	0	330	1	0	250	60	0	310	2	640
08:00 - 09:00	15	316	0	0	331	0	0	267	33	0	300	1	631
09:00 - 10:00	22	328	0	0	350	1	0	282	30	0	312	0	662
BREAK													
11:00 - 12:00	17	348	0	0	365	0	0	373	44	0	417	4	782
12:00 - 13:00	11	348	0	0	359	0	0	421	56	0	477	2	836
13:00 - 14:00	9	310	0	0	319	5	0	407	52	0	459	1	778
BREAK													
15:00 - 16:00	11	362	0	0	373	1	0	483	68	0	551	7	924
16:00 - 17:00	10	368	0	0	378	0	0	604	79	0	683	5	1061
17:00 - 18:00	10	302	0	0	312	0	0	627	82	1	710	6	1022
GRAND TOTAL	**119**	**2998**	**0**	**0**	**3117**	**8**	**0**	**3714**	**504**	**1**	**4219**	**28**	**7336**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

SPITFIRES WAY - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Medium Trucks, Heavy Trucks, Bicycles						Includes Cars, Medium Trucks, Heavy Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	47	0	9	0	56	2	0	0	0	0	0	0	56
08:00 - 09:00	15	0	6	0	21	1	0	0	0	0	0	0	21
09:00 - 10:00	32	0	19	0	51	1	0	0	0	0	0	0	51
BREAK													
11:00 - 12:00	62	0	12	0	74	2	0	0	0	0	0	0	74
12:00 - 13:00	39	0	6	0	45	0	0	0	0	0	0	0	45
13:00 - 14:00	38	0	7	0	45	3	0	0	0	0	0	0	45
BREAK													
15:00 - 16:00	71	0	7	0	78	4	0	0	0	0	0	0	78
16:00 - 17:00	66	0	20	0	86	0	0	0	0	0	0	0	86
17:00 - 18:00	49	0	5	0	54	4	0	0	0	0	0	0	54
GRAND TOTAL	**419**	**0**	**91**	**0**	**510**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**510**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

North Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	5	52	0	0	57	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	1
07:15	1	56	0	0	57	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0
07:30	5	74	0	0	79	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0
07:45	3	121	0	0	124	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
08:00	2	84	0	0	86	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0
08:15	5	78	0	0	83	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0
08:30	3	65	0	0	68	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0
08:45	2	75	0	0	77	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	0
09:00	3	73	0	0	76	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0
09:15	6	82	0	0	88	1	1	0	0	2	1	3	0	0	4	0	0	0	0	0	1
09:30	4	79	0	0	83	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
09:45	7	83	0	0	90	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	46	922	0	0	968	2	12	0	0	14	3	25	0	0	28	0	1	0	0	1	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

North Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
					Total					Total					Total					Total	
11:00	3	76	0	0	79	0	0	0	0	0	1	2	0	0	3	1	0	0	0	1	0
11:15	1	93	0	0	94	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
11:30	6	74	0	0	80	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0
11:45	4	96	0	0	100	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0
12:00	2	73	0	0	75	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
12:15	2	76	0	0	78	0	3	0	0	3	1	1	0	0	2	0	0	0	0	0	0
12:30	2	89	0	0	91	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
12:45	4	96	0	0	100	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0
13:00	2	81	0	0	83	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
13:15	2	76	0	0	78	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	1
13:30	2	72	0	0	74	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
13:45	1	72	0	0	73	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	1
SUBTOTAL	31	974	0	0	1005	0	14	0	0	14	5	18	0	0	23	1	0	0	0	1	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

North Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	4	97	0	0	101	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
15:15	1	91	0	0	92	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0
15:30	1	73	0	0	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	3	92	0	0	95	0	2	0	0	2	1	1	0	0	2	0	1	0	0	1	1
16:00	2	100	0	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	2	83	0	0	85	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	0
16:30	2	89	0	0	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	3	93	0	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	1	81	0	0	82	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0
17:15	2	83	0	0	85	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0
17:30	4	68	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	1	68	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	26	1018	0	0	1044	0	8	0	0	8	5	3	0	0	8	0	3	0	0	3	1
GRAND TOTAL	103	2914	0	0	3017	2	34	0	0	36	13	46	0	0	59	1	4	0	0	5	8

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

South Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
07:00	0	37	8	0	45	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0
07:15	0	46	20	0	66	0	2	0	0	2	0	4	0	0	4	0	0	0	0	0	1
07:30	0	71	18	0	89	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	1
07:45	0	81	13	0	94	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
08:00	0	41	10	0	51	0	0	1	0	1	0	3	1	0	4	0	0	0	0	0	0
08:15	0	63	6	0	69	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
08:30	0	75	5	0	80	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
08:45	0	79	10	0	89	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1
09:00	0	64	8	0	72	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
09:15	0	74	7	0	81	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0
09:30	0	64	9	0	73	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0
09:45	0	71	5	0	76	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	0	766	119	0	885	0	5	1	0	6	0	27	2	0	29	0	1	1	0	2	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

South Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
					Total					Total					Total					Total	
11:00	0	77	12	0	89	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	1
11:15	0	85	7	0	92	0	1	1	0	2	0	4	0	0	4	0	0	0	0	0	0
11:30	0	98	4	0	102	0	2	1	0	3	0	1	0	0	1	0	1	1	0	2	1
11:45	0	98	15	0	113	0	1	0	0	1	0	3	0	0	3	0	0	2	0	2	2
12:00	0	104	12	0	116	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15	0	101	14	0	115	0	3	1	0	4	0	2	0	0	2	0	0	0	0	0	1
12:30	0	105	17	0	122	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0
12:45	0	98	11	0	109	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	1
13:00	0	97	16	0	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	88	10	0	98	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0
13:30	0	99	13	0	112	0	1	1	0	2	0	2	0	0	2	0	0	0	0	0	1
13:45	0	115	10	0	125	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0
SUBTOTAL	0	1165	141	0	1306	0	16	7	0	23	0	19	1	0	20	0	1	3	0	4	7

Ontario Traffic Inc.
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Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

South Approach - LAUZON ROAD

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
15:00	0	114	9	0	123	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0
15:15	0	132	18	0	150	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0
15:30	0	107	21	0	128	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
15:45	0	125	18	0	143	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
16:00	0	150	14	0	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	149	22	0	171	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16:30	0	157	18	0	175	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
16:45	0	145	25	0	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
17:00	0	143	21	1	165	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	4
17:15	0	182	25	0	207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	152	21	0	173	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
17:45	0	148	13	0	161	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	1704	225	1	1930	0	6	1	0	7	0	3	1	0	4	0	1	2	0	3	18
GRAND TOTAL	0	3635	485	1	4121	0	27	9	0	36	0	49	4	0	53	0	3	6	0	9	28

Ontario Traffic Inc.
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Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

East Approach - SPITFIRES WAY

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	4	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
07:30	16	0	3	0	19	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
07:45	13	0	5	0	18	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1
08:00	1	0	0	0	1	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	1
08:15	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:30	5	0	2	0	7	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0
08:45	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	5	0	4	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:15	5	0	3	0	8	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
09:30	10	0	4	0	14	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
09:45	8	0	8	0	16	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	82	0	33	0	115	2	0	0	0	2	7	0	1	0	8	3	0	0	0	3	4

Ontario Traffic Inc.
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Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

East Approach - SPITFIRES WAY

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
11:00	5	0	4	0	9	0	0	1	0	1	1	0	0	0	1	3	0	0	0	3	1
11:15	11	0	1	0	12	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30	22	0	3	0	25	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	0
11:45	16	0	3	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:00	12	0	2	0	14	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
12:15	10	0	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	6	0	2	0	8	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
12:45	6	0	1	0	7	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0
13:00	16	0	2	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
13:15	4	0	3	0	7	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	1
13:30	7	0	0	0	7	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
13:45	7	0	1	0	8	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	122	0	23	0	145	6	0	2	0	8	7	0	0	0	7	4	0	0	0	4	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Municipality: Windsor
Count Date: Sep 14, 2022

East Approach - SPITFIRES WAY

Start Time	Cars					Medium Trucks					Heavy Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	22	0	1	0	23	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
15:15	19	0	1	0	20	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
15:30	10	0	2	0	12	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
15:45	17	0	3	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:00	23	0	8	0	31	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
16:15	13	0	6	0	19	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
16:30	16	0	5	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	11	0	1	0	12	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
17:00	15	0	2	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:15	15	0	1	0	16	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
17:30	12	0	2	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
17:45	5	0	0	0	5	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	178	0	32	0	210	2	0	0	0	2	5	0	0	0	5	1	0	0	0	1	8
GRAND TOTAL	382	0	88	0	470	10	0	2	0	12	19	0	1	0	20	8	0	0	0	8	17

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:30:00
To:	10:00:00	To:	08:30:00

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: LAUZON ROAD runs N/S

North Approach

	Out	In	Total
Cars	372	265	637
MT	3	1	4
HT	12	11	23
Bicycles	0	1	1
	387	**278**	**665**

LAUZON ROAD

Bicycles	0	0	0
HT	11	1	0
MT	3	0	0
Cars	357	15	0
Totals	**371**	**16**	**0**

Peds: 0

Peds: 0

Peds: 2

Peds: 1

LAUZON ROAD

Totals	268	49	0
Cars	256	47	0
MT	1	1	0
HT	10	1	0
Bicycles	1	0	0

East Approach

	Out	In	Total
Cars	40	62	102
MT	2	1	3
HT	3	2	5
Bicycles	1	0	1
	46	**65**	**111**

SPITFIRES WAY

Totals	Cars	MT	HT	Bicycles
0	0	0	0	0
10	9	0	1	0
36	31	2	2	1

South Approach

	Out	In	Total
Cars	303	388	691
MT	2	5	7
HT	11	13	24
Bicycles	1	1	2
	317	**407**	**724**

Cars - Cars MT - Medium Trucks HT - Heavy Trucks Bicycles - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022
Period: 07:00 - 10:00

Peak Hour Data (07:30 - 08:30)

Start Time	North Approach LAUZON ROAD						South Approach LAUZON ROAD						East Approach SPITFIRES WAY						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:30	5	78		0	0	83		77	18	0	1	95	17		3	0	0	20					0		198
07:45	3	124		0	0	127		82	13	0	0	95	15		5	0	1	20					0		242
08:00	2	88		0	0	90		44	12	0	0	56	2		1	0	1	3					0		149
08:15	6	81		0	0	87		65	6	0	0	71	2		1	0	0	3					0		161
Grand Total	**16**	**371**		**0**	**0**	**387**		**268**	**49**	**0**	**1**	**317**	**36**		**10**	**0**	**2**	**46**					**0**	**0**	**750**
Approach %	4.1	95.9		0		-		84.5	15.5	0		-	78.3		21.7	0		-						-	
Totals %	2.1	49.5		0		51.6		35.7	6.5	0		42.3	4.8		1.3	0		6.1						0	
PHF	**0.67**	**0.75**		**0**		**0.76**		**0.82**	**0.68**	**0**		**0.83**	**0.53**		**0.5**	**0**		**0.58**						**0**	**0.77**
Cars	15	357		0		372		256	47	0		303	31		9	0		40						0	715
% Cars	93.8	96.2		0		96.1		95.5	95.9	0		95.6	86.1		90	0		87						0	95.3
Medium Trucks	0	3		0		3		1	1	0		2	2		0	0		2						0	7
% Medium Trucks	0	0.8		0		0.8		0.4	2	0		0.6	5.6		0	0		4.3						0	0.9
Heavy Trucks	1	11		0		12		10	1	0		11	2		1	0		3						0	26
% Heavy Trucks	6.3	3		0		3.1		3.7	2	0		3.5	5.6		10	0		6.5						0	3.5
Bicycles	0	0		0		0		1	0	0		1	1		0	0		1						0	2
% Bicycles	0	0		0		0		0.4	0	0		0.3	2.8		0	0		2.2						0	0.3
Peds					0	-					1	-					2	-					0	-	3
% Peds					0	-					33.3	-					66.7	-					0	-	

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	11:00:00	From:	11:45:00
To:	14:00:00	To:	12:45:00

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: LAUZON ROAD runs N/S

North Approach

	Out	In	Total
Cars	344	416	760
MT	4	7	11
HT	9	5	14
Bicycles	0	0	0
	357	**428**	**785**

LAUZON ROAD

Bicycles	0	0	0
HT	7	2	0
MT	4	0	0
Cars	334	10	0
Totals	**345**	**12**	**0**

Peds: 0

Peds: 0

Peds: 1

Peds: 3

LAUZON ROAD

Totals	420	62	0
Cars	408	58	0
MT	7	2	0
HT	5	0	0
Bicycles	0	2	0

East Approach

	Out	In	Total
Cars	52	68	120
MT	2	2	4
HT	1	2	3
Bicycles	0	2	2
	55	**74**	**129**

SPITFIRES WAY

Totals	Cars	MT	HT	Bicycles
0	0	0	0	0
8	8	0	0	0
47	44	2	1	0

South Approach

	Out	In	Total
Cars	466	378	844
MT	9	6	15
HT	5	8	13
Bicycles	2	0	2
	482	**392**	**874**

Cars - Cars MT - Medium Trucks HT - Heavy Trucks Bicycles - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022
Period: 11:00 - 14:00

Peak Hour Data (11:45 - 12:45)

Start Time	North Approach LAUZON ROAD						South Approach LAUZON ROAD						East Approach SPITFIRES WAY						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
11:45	5	98		0	0	103		102	17	0	2	119	16		3	0	1	19					0		241
12:00	2	76		0	0	78		105	12	0	0	117	13		2	0	0	15					0		210
12:15	3	80		0	0	83		106	15	0	1	121	10		1	0	0	11					0		215
12:30	2	91		0	0	93		107	18	0	0	125	8		2	0	0	10					0		228
Grand Total	**12**	**345**		**0**	**0**	**357**		**420**	**62**	**0**	**3**	**482**	**47**		**8**	**0**	**1**	**55**					**0**	**0**	**894**
Approach %	3.4	96.6		0		-		87.1	12.9	0		-	85.5		14.5	0		-						-	
Totals %	1.3	38.6		0		39.9		47	6.9	0		53.9	5.3		0.9	0		6.2						0	
PHF	**0.6**	**0.88**		**0**		**0.87**		**0.98**	**0.86**	**0**		**0.96**	**0.73**		**0.67**	**0**		**0.72**						**0**	**0.93**
Cars	10	334		0		344		408	58	0		466	44		8	0		52						0	862
% Cars	83.3	96.8		0		96.4		97.1	93.5	0		96.7	93.6		100	0		94.5						0	96.4
Medium Trucks	0	4		0		4		7	2	0		9	2		0	0		2						0	15
% Medium Trucks	0	1.2		0		1.1		1.7	3.2	0		1.9	4.3		0	0		3.6						0	1.7
Heavy Trucks	2	7		0		9		5	0	0		5	1		0	0		1						0	15
% Heavy Trucks	16.7	2		0		2.5		1.2	0	0		1	2.1		0	0		1.8						0	1.7
Bicycles	0	0		0		0		0	2	0		2	0		0	0		0						0	2
% Bicycles	0	0		0		0		0	3.2	0		0.4	0		0	0		0						0	0.2
Peds					0	-					3	-					1	-					0	-	4
% Peds					0	-					75	-					25	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	15:00:00	From:	16:00:00
To:	18:00:00	To:	17:00:00

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: LAUZON ROAD runs N/S

North Approach

	Out	In	Total
Cars	374	621	995
MT	1	3	4
HT	2	0	2
Bicycles	1	0	1
	378	**624**	**1002**

LAUZON ROAD

Bicycles	1	0	0
HT	1	1	0
MT	1	0	0
Cars	365	9	0
Totals	**368**	**10**	**0**

Peds: 0

Peds: 0

Peds: 0

Peds: 5

Totals	604	79	0
Cars	601	79	0
MT	3	0	0
HT	0	0	0
Bicycles	0	0	0

LAUZON ROAD

East Approach

	Out	In	Total
Cars	83	88	171
MT	0	0	0
HT	2	1	3
Bicycles	1	0	1
	86	**89**	**175**

SPITFIRES WAY

Totals	Cars	MT	HT	Bicycles
0	0	0	0	0
20	20	0	0	0
66	63	0	2	1

South Approach

	Out	In	Total
Cars	680	428	1108
MT	3	1	4
HT	0	3	3
Bicycles	0	2	2
	683	**434**	**1117**

Cars - Cars MT - Medium Trucks HT - Heavy Trucks Bicycles - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: LAUZON ROAD & SPITFIRES WAY
Site Code: 2207400001
Count Date: Sep 14, 2022
Period: 15:00 - 18:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach LAUZON ROAD						South Approach LAUZON ROAD						East Approach SPITFIRES WAY						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	2	100		0	0	102		150	14	0	0	164	24		8	0	0	32					0		298
16:15	3	86		0	0	89		150	22	0	0	172	14		6	0	0	20					0		281
16:30	2	89		0	0	91		159	18	0	2	177	16		5	0	0	21					0		289
16:45	3	93		0	0	96		145	25	0	3	170	12		1	0	0	13					0		279
Grand Total	**10**	**368**		**0**	**0**	**378**		**604**	**79**	**0**	**5**	**683**	**66**		**20**	**0**	**0**	**86**					**0**	**0**	**1147**
Approach %	2.6	97.4		0		-		88.4	11.6	0		-	76.7		23.3	0		-						-	
Totals %	0.9	32.1		0		33		52.7	6.9	0		59.5	5.8		1.7	0		7.5						0	
PHF	**0.83**	**0.92**		**0**		**0.93**		**0.95**	**0.79**	**0**		**0.96**	**0.69**		**0.63**	**0**		**0.67**						**0**	**0.96**
Cars	9	365		0		374		601	79	0		680	63		20	0		83						0	1137
% Cars	90	99.2		0		98.9		99.5	100	0		99.6	95.5		100	0		96.5						0	99.1
Medium Trucks	0	1		0		1		3	0	0		3	0		0	0		0						0	4
% Medium Trucks	0	0.3		0		0.3		0.5	0	0		0.4	0		0	0		0						0	0.3
Heavy Trucks	1	1		0		2		0	0	0		0	2		0	0		2						0	4
% Heavy Trucks	10	0.3		0		0.5		0	0	0		0	3		0	0		2.3						0	0.3
Bicycles	0	1		0		1		0	0	0		0	1		0	0		1						0	2
% Bicycles	0	0.3		0		0.3		0	0	0		0	1.5		0	0		1.2						0	0.2
Peds					0	-					5	-					0	-					0	-	5
% Peds					0	-					100	-					0	-					0	-	

File Name: Farhi, Lauzon Road at Spitfire Way
Start Date : 2025-06-14
Page No : 1

	Lauzon Road From South				Spitfire Way From East				Lauzon Road From North				
Start Time	Right	Thru	Peds	App. Total	Right	Left	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
11:00 AM	41	95	0	136	3	28	0	31	4	99	0	103	270
11:15 AM	44	105	0	149	4	21	0	25	5	96	0	101	275
11:30 AM	62	121	0	183	2	21	0	23	5	92	0	97	303
11:45 AM	61	116	0	177	1	36	0	37	3	128	0	131	345
12:00 PM	82	110	2	194	6	33	0	39	4	112	1	117	350
12:15 PM	121	165	2	288	3	35	3	41	12	105	1	118	447
12:30 PM	131	165	2	298	4	36	0	40	18	111	1	130	468
12:45 PM	115	156	2	273	10	42	1	53	11	157	0	168	494
1:00 PM	86	153	4	243	3	29	0	32	2	138	2	142	417
1:15 PM	52	148	2	202	4	27	1	32	4	142	0	146	380
1:30 PM	59	126	2	187	3	25	0	28	1	99	1	101	316
1:45 PM	59	148	0	207	0	31	2	33	1	124	4	129	369
Total													
Grand Total	913	1608	16	2537	43	364	7	414	70	1403	10	1483	4434
Apprch %	36.0	63.4	0.6		10.4	87.9	1.7		4.7	94.6	0.7		
Total %	20.6	36.3	0.4	57.2	1.0	8.2	0.2	9.3	1.6	31.6	0.2	33.4	
Peak Hour Total	453	639	10	1102	20	142	4	166	43	511	4	558	1826
Heavys	0	0	-	0	0	0	0	0	0	0	-	0	0
% Heavys	0	0	-	0	0	0	0	0	0	0	-	0	0

File Name: Farhi, Lauzon Road at Spitfire Way
Start Date : 2025-06-15
Page No : 2

	Lauzon Road From South				Spitfire Way From East				Lauzon Road From North				
Start Time	Right	Thru	Peds	App. Total	Right	Left	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
11:00 AM	26	80	2	108	2	19	0	21	6	89	0	95	224
11:15 AM	32	75	0	107	2	26	0	28	2	87	3	92	227
11:30 AM	21	100	0	121	2	18	0	20	2	69	0	71	212
11:45 AM	38	105	0	143	3	20	1	24	2	99	2	103	270
12:00 PM	33	110	0	143	1	36	0	37	2	88	0	90	270
12:15 PM	34	93	1	128	1	23	1	25	6	89	0	95	248
12:30 PM	36	100	2	138	0	22	1	23	0	90	0	90	251
12:45 PM	38	77	0	115	1	25	0	26	2	86	1	89	230
1:00 PM	30	93	0	123	8	35	2	45	5	87	0	92	260
1:15 PM	32	88	0	120	2	39	0	41	2	76	0	78	239
1:30 PM	28	98	0	126	1	21	0	22	2	78	0	80	228
1:45 PM	36	89	0	125	1	23	0	24	5	81	0	86	235
Grand Total	384	1108	5	1497	24	307	5	336	36	1019	6	1061	2894
Apprch %	25.7	74.0	0.3		7.1	91.4	1.5		3.4	96.0	0.6		
Total %	13.3	38.3	0.2	51.7	0.8	10.6	0.2	11.6	1.2	35.2	0.2	36.7	
Peak Hour Total	141	408	3	552	5	101	3	109	10	366	2	378	1039
Heavys	0	0	0	0	0	2	0	2	0	0	0	0	0
% Heavys	0	0	0	0	0	100	0	0.60	0	0	0	0	0

City of Windsor Advanced Traffic Management System
FOIA Report

D4-LAUZON and SPITFIRES WAY
Intersection Asset Num: 1963: D4-LAUZON-SPITFIRES WAY
2025-06-09 From 12:00 AM , To 11:59 PM

Phase Diagram

1	2 NBT 	3	4 WBT 
5	6 SBT 	7	8

Report generated on: 2025-06-09 4:14:16 PM

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Pattern Summary

Pattern	Cycle	Offset	1	2-NBT	3	4-WBT	5	6-SBT	7	8	9	10	11	12	13	14	15	16
1	50	18	0	26	0	24	0	26	0	0	0	0	0	0	0	0	0	0
2	53	20	0	29	0	24	0	29	0	0	0	0	0	0	0	0	0	0
3	53	20	0	29	0	24	0	29	0	0	0	0	0	0	0	0	0	0
6	108	10	0	76	0	32	0	76	0	0	0	0	0	0	0	0	0	0
7	108	20	0	32	0	76	0	32	0	0	0	0	0	0	0	0	0	0

Pattern Green Summary

Pattern	Cycle	Offset	1	2-NBT	3	4-WBT	5	6-SBT	7	8	9	10	11	12	13	14	15	16
1	50	18	0	21	0	19	0	21	0	0	0	0	0	0	0	0	0	0
2	53	20	0	24	0	19	0	24	0	0	0	0	0	0	0	0	0	0
3	53	20	0	24	0	19	0	24	0	0	0	0	0	0	0	0	0	0
6	108	10	0	71	0	27	0	71	0	0	0	0	0	0	0	0	0	0
7	108	20	0	27	0	71	0	27	0	0	0	0	0	0	0	0	0	0

Controller Database Configuration: 1963: D4-LAUZON-SPITFIRES WAY
2025-06-09 from 12:00 AM to 11:59 PM

Phase Timing

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	0	10	0	8	0	10	0	0	0	0	0	0	0	0	0	0
Vehicle Extension	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0
Max Green 1	0	20	0	15	0	20	0	0	0	0	0	0	0	0	0	0
Max Green 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Green 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0
Red Clear	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Advanced Flasher Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	11	0	7	0	0	0	0	0	0	0	0	0	0
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Early Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Conditional Service Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Conditional Service Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0	2.5	0	2.5	0	2.5	0	0	0	0	0	0	0	0	0	0
Negative Overlap Ped Hold Off	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Audible Pedestrian Disconnect	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preempt Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preempt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preempt Pedestrian Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preempt Return Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DW Hold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Hold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Controller Database Configuration: 1963: D4-LAUZON-SPITFIRES WAY
2025-06-09 from 12:00 AM to 11:59 PM

TOD Pattern Events

			Days of Week							Holidays										
Event	Hour	Minute	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	Mode	Pattern	Offset
1	0	0	X	X	X	X	X	X	X									Scheduler	1	1
2	1	0	X	X	X	X	X	X	X									Scheduler	1	1
3	6	0	X	X	X	X	X	X	X									Scheduler	1	1
4	9	30	X	X	X	X	X	X	X									Scheduler	2	1
5	15	0	X	X	X	X	X	X	X									Scheduler	3	1
6	16	0	X	X	X	X	X	X	X									Scheduler	3	1
7	18	30	X	X	X	X	X	X	X									Scheduler	2	1
8	21	30	X	X	X	X	X	X	X									Scheduler	2	1
11	1	0								X								Scheduler	1	1
12	6	0								X								Scheduler	1	1
13	9	30								X								Scheduler	2	1
14	15	0								X								Scheduler	3	1
15	16	0								X								Scheduler	3	1
16	18	0								X								Scheduler	6	1
17	19	0								X								Scheduler	2	1
18	21	30								X								Scheduler	7	1
19	22	30								X								Scheduler	2	1
21	1	0									X							Scheduler	1	1
22	6	0									X							Scheduler	1	1
23	9	30									X							Scheduler	2	1
24	13	0									X							Scheduler	6	1
25	14	0									X							Scheduler	2	1
26	16	30									X							Scheduler	7	1
27	17	30									X							Scheduler	2	1
29	1	0										X						Scheduler	1	1
30	6	0										X						Scheduler	1	1
31	9	30										X						Scheduler	2	1
32	12	0										X						Scheduler	6	1
33	13	0										X						Scheduler	2	1
34	15	30										X						Scheduler	7	1
35	16	30										X						Scheduler	2	1
37	1	0											X					Scheduler	1	1
38	6	0											X					Scheduler	1	1
39	9	30											X					Scheduler	2	1
40	15	0											X					Scheduler	6	1
41	16	0											X					Scheduler	2	1
42	18	30											X					Scheduler	7	1
43	19	30											X					Scheduler	2	1
48	22	15													X			Scheduler	30	1
50	1	0												X				Scheduler	1	1
51	6	0												X				Scheduler	1	1
52	9	30												X				Scheduler	2	1
53	15	0												X				Scheduler	3	1
54	16	0												X				Scheduler	3	1
55	18	30												X				Scheduler	6	1
56	19	30												X				Scheduler	2	1
57	22	0												X				Scheduler	7	1
58	22	30												X				Scheduler	2	1

Coordination Pattern

Coordination Pattern 1

Pattern	1	Description														
Cycle Length	50															
Ring Group 1 Offset 1		18	Ring Group 1 Offset 2		0	Ring Group 1 Offset 3		0								
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2		0	Ring Group 2 Offset 3		0								
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	26	0	24	0	26	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	21	0	19	0	21	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	31	0	29	0	31	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination Pattern 2

Pattern	2	Description														
Cycle Length	53															
Ring Group 1 Offset 1		20	Ring Group 1 Offset 2		0	Ring Group 1 Offset 3		0								
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2		0	Ring Group 2 Offset 3		0								
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	29	0	24	0	29	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	21	0	19	0	21	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	31	0	29	0	31	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination Pattern 3

Pattern	3	Description														
Cycle Length	53															
Ring Group 1 Offset 1		20	Ring Group 1 Offset 2		0	Ring Group 1 Offset 3		0								
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2		0	Ring Group 2 Offset 3		0								
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	29	0	24	0	29	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	21	0	19	0	21	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	31	0	29	0	31	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination Pattern 6

Pattern	6	Description													
Cycle Length	108														
Ring Group 1 Offset 1		10	Ring Group 1 Offset 2	0	Ring Group 1 Offset 3	0									
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2	0	Ring Group 2 Offset 3	0									
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	76	0	32	0	76	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	71	0	27	0	71	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	81	0	37	0	81	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination Pattern 7

Pattern	7	Description													
Cycle Length	108														
Ring Group 1 Offset 1		20	Ring Group 1 Offset 2	0	Ring Group 1 Offset 3	0									
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2	0	Ring Group 2 Offset 3	0									
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	32	0	76	0	32	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	27	0	71	0	27	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	37	0	81	0	37	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination Pattern 30

Pattern	30	Description													
Cycle Length	0														
Ring Group 1 Offset 1		0	Ring Group 1 Offset 2	0	Ring Group 1 Offset 3	0									
Ring Group 2 Offset 1		0	Ring Group 2 Offset 2	0	Ring Group 2 Offset 3	0									
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split Extension	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floating Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Per Adjust After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C

ITE Page References

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

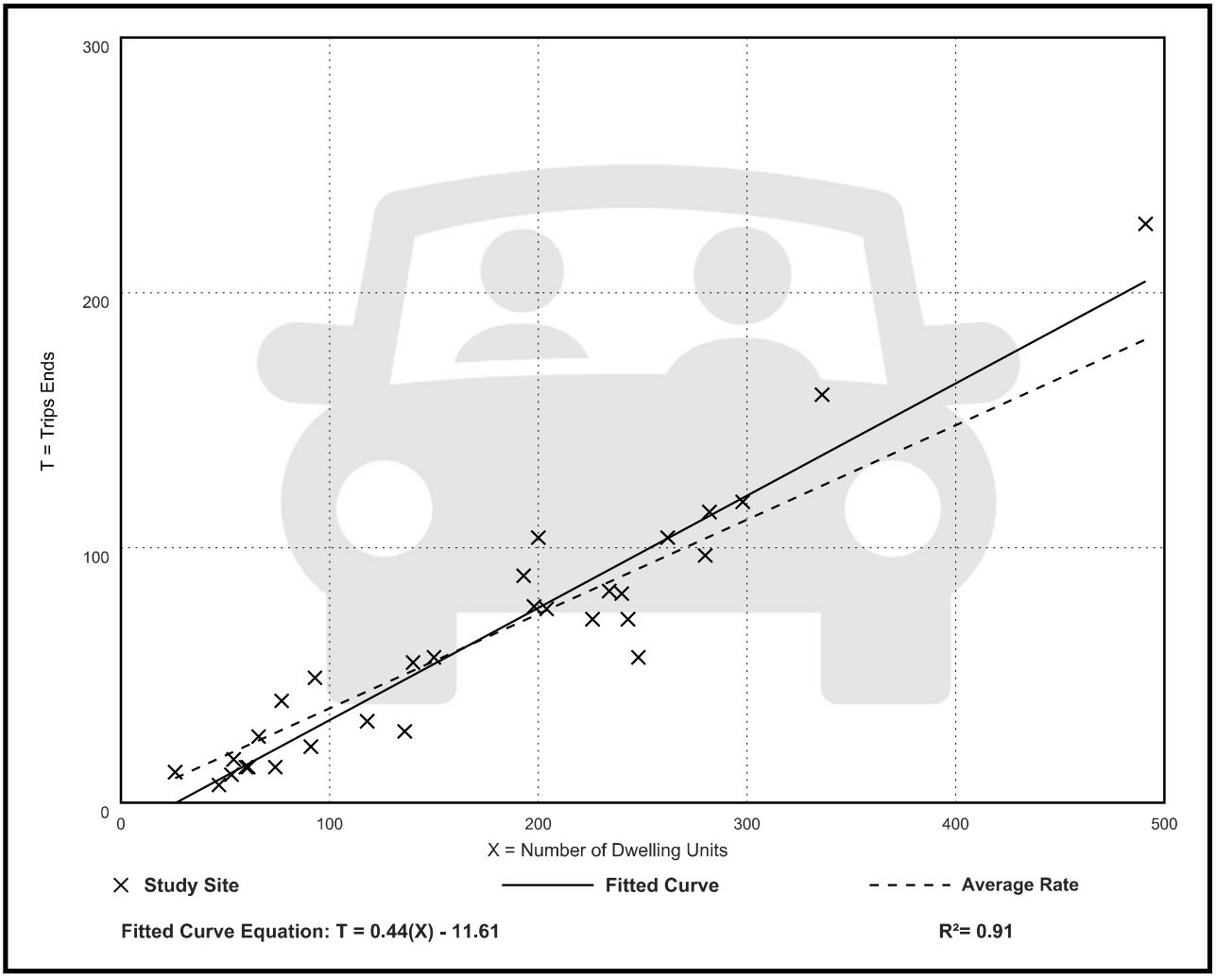
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



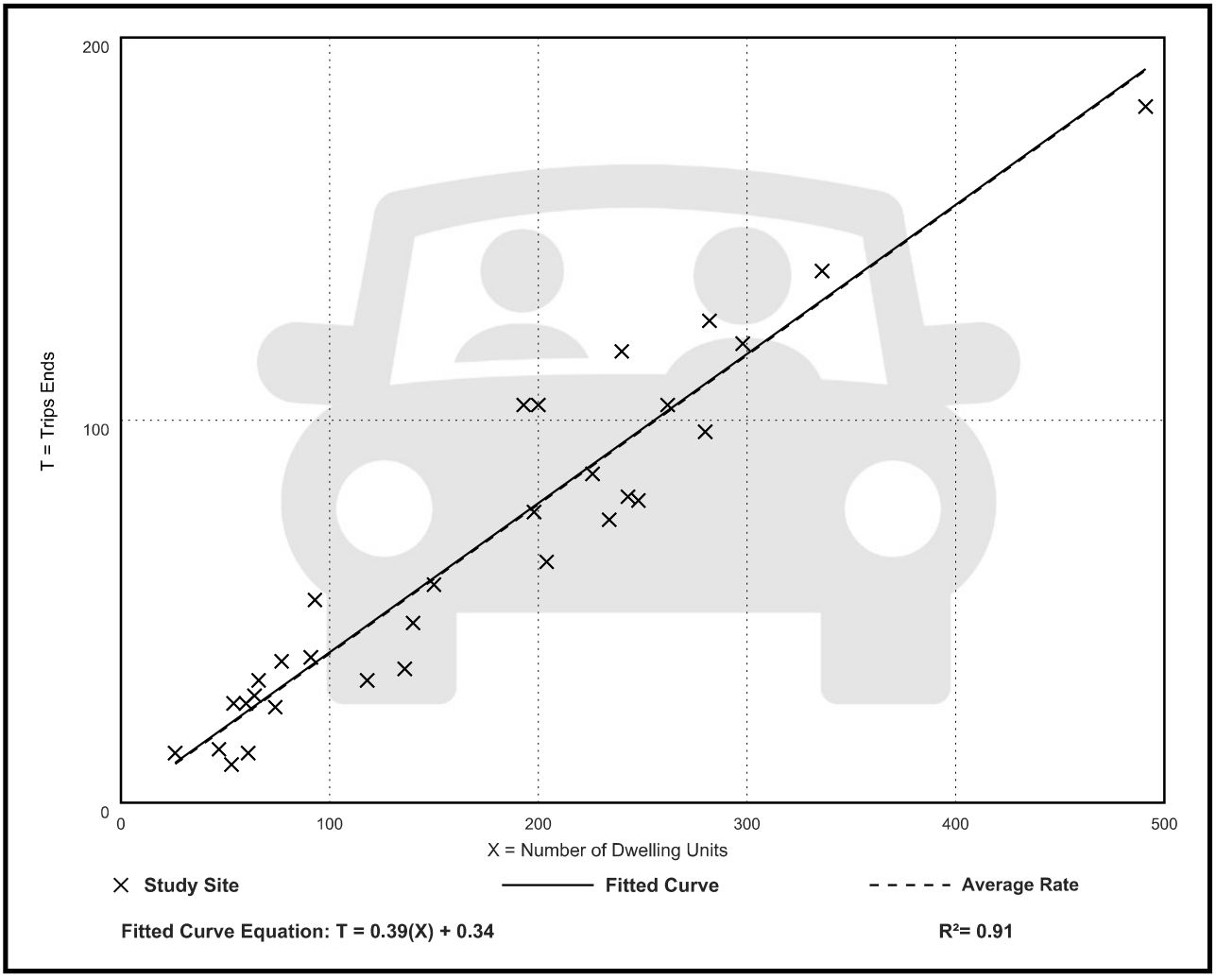
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

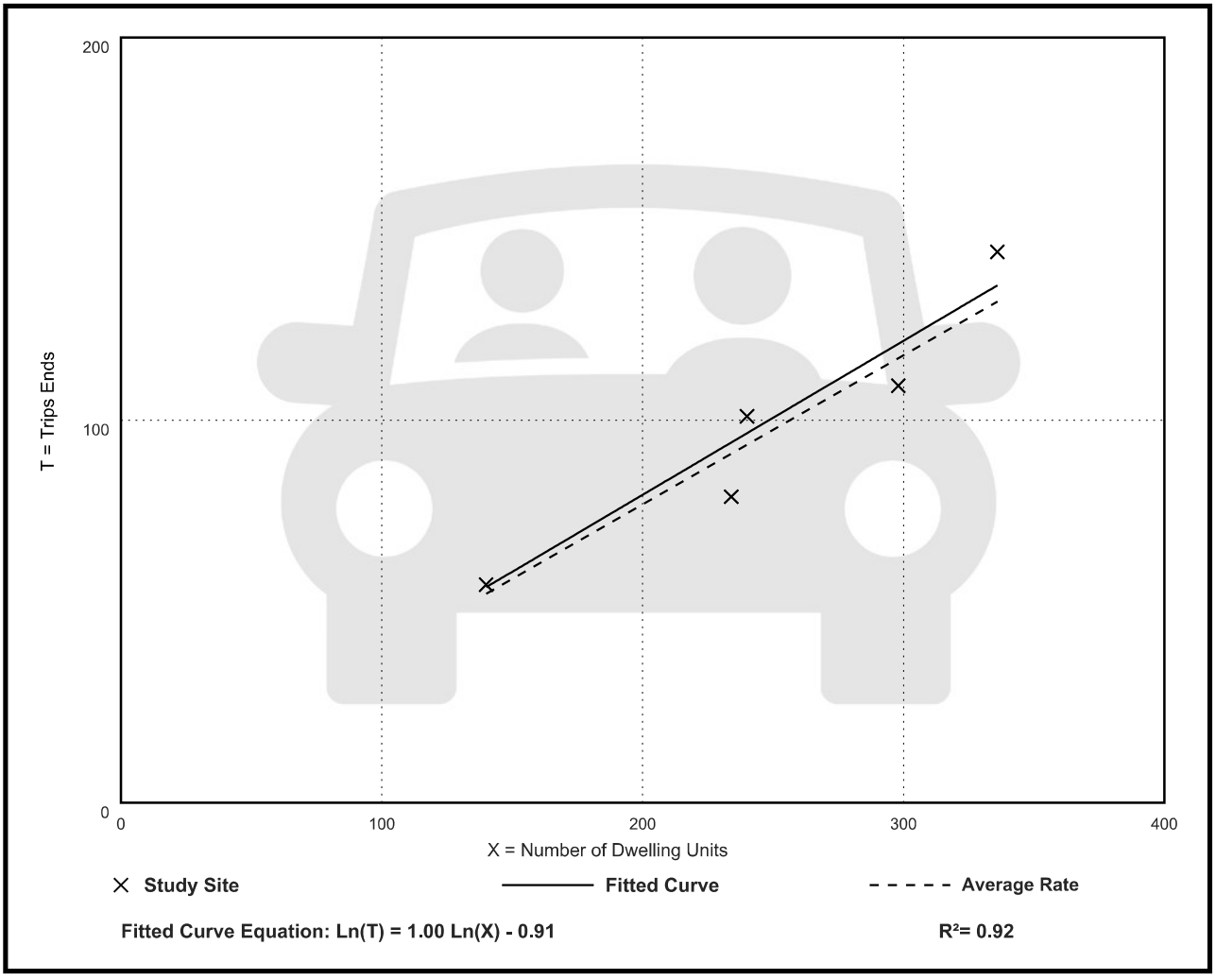
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Dwelling Units: 250
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.34 - 0.43	0.04

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 1.00 Ln(X) - 0.91

R^2= 0.92

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

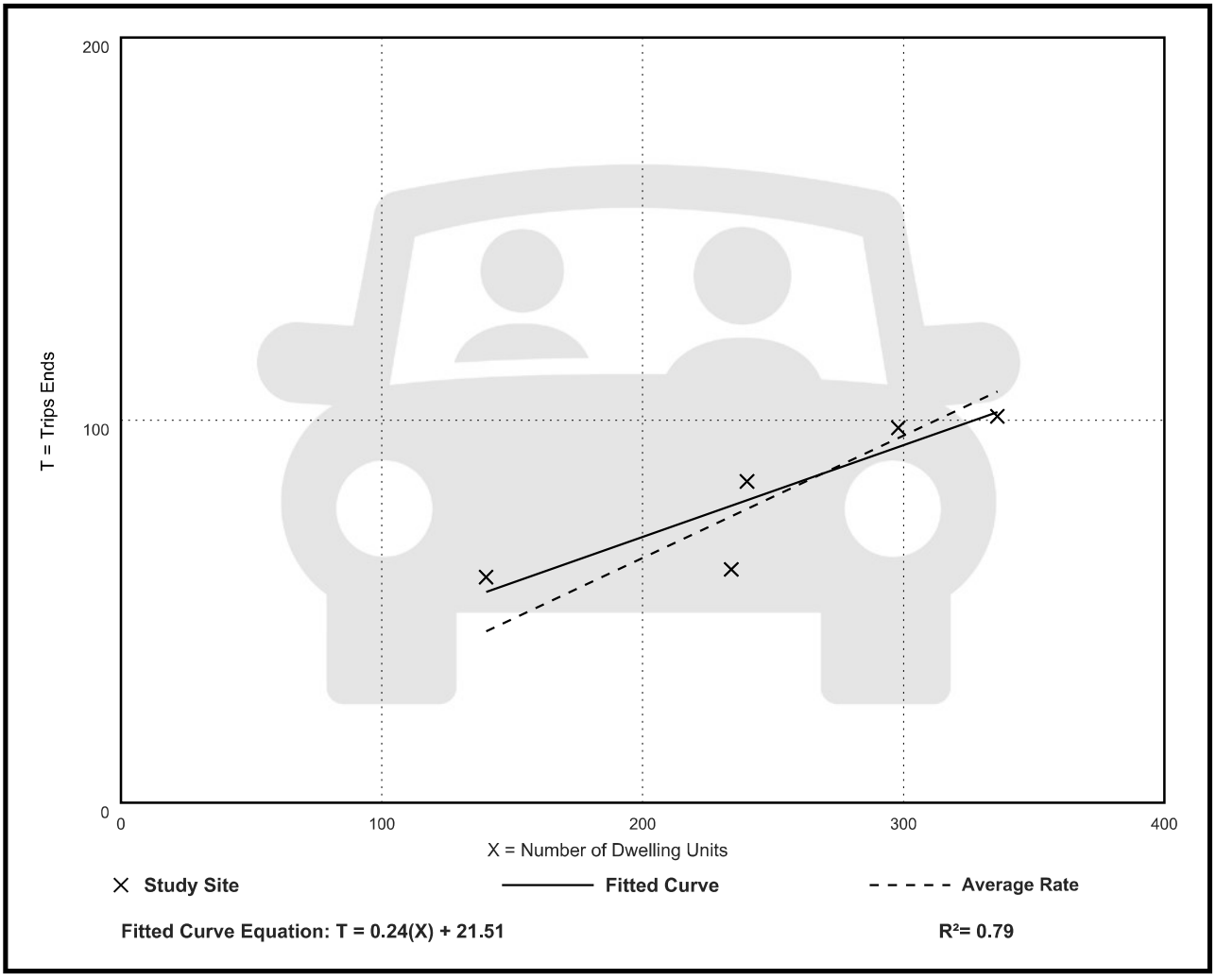
Vehicle Trip Ends vs: Dwelling Units
On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Dwelling Units: 250
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.26 - 0.42	0.05

Data Plot and Equation



Fitted Curve Equation: T = 0.24(X) + 21.51

R^2= 0.79

Land Use: 822
Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.

The 40,000 square feet GFA threshold between strip retail plaza and shopping plaza (Land Use 821) was selected based on an examination of the overall shopping center/plaza database. No shopping plaza with a supermarket as its anchor is smaller than 40,000 square feet GLA.

Shopping center (>150k) (Land use 820), shopping plaza (40-150k) (Land Use 821), and factory outlet center (Land Use 823) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Delaware, Florida, New Jersey, Ontario (CAN), South Dakota, Vermont, Washington, and Wisconsin.

Source Numbers

304, 358, 423, 428, 437, 507, 715, 728, 936, 960, 961, 974, 1009

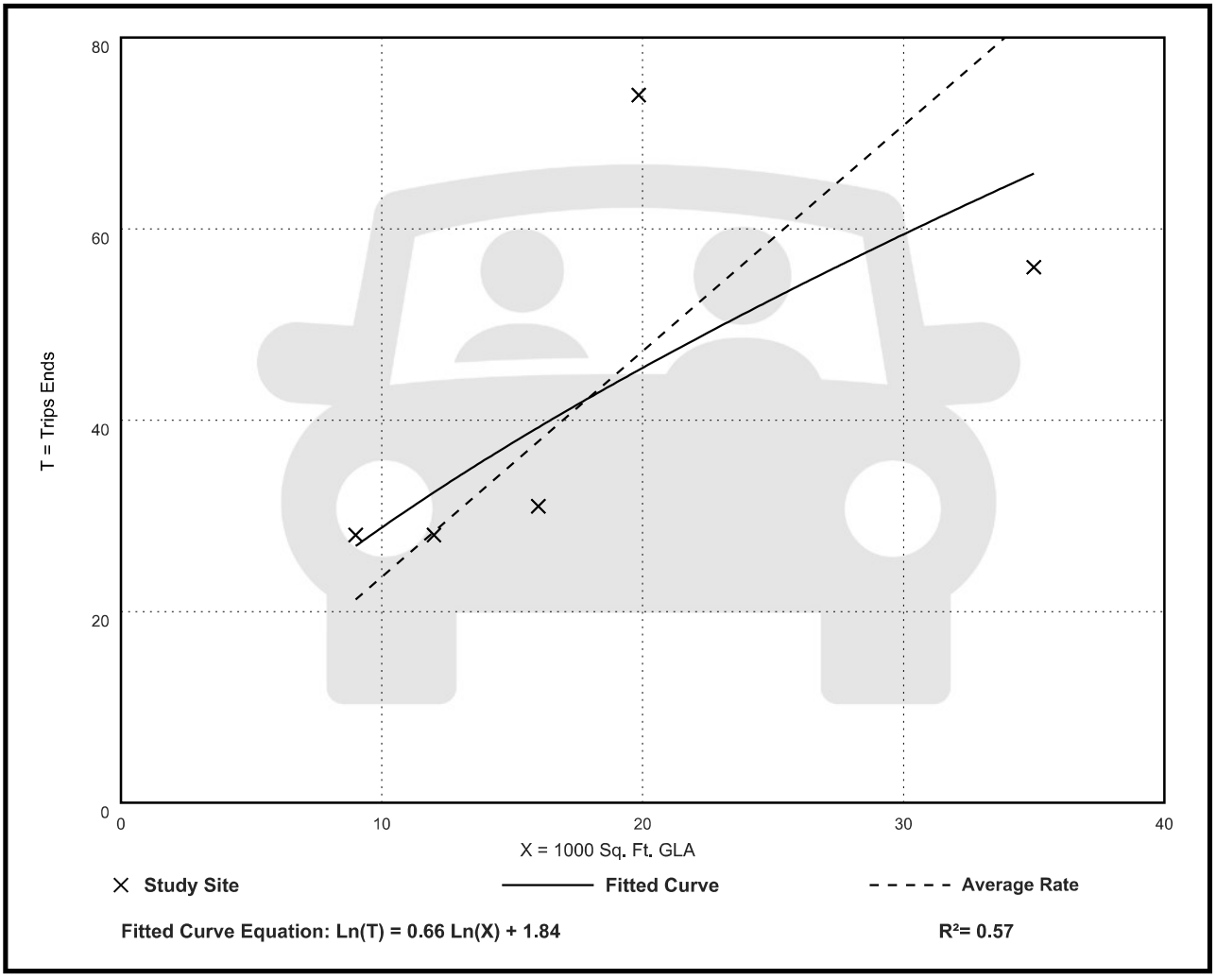
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.66 Ln(X) + 1.84

R^2= 0.57

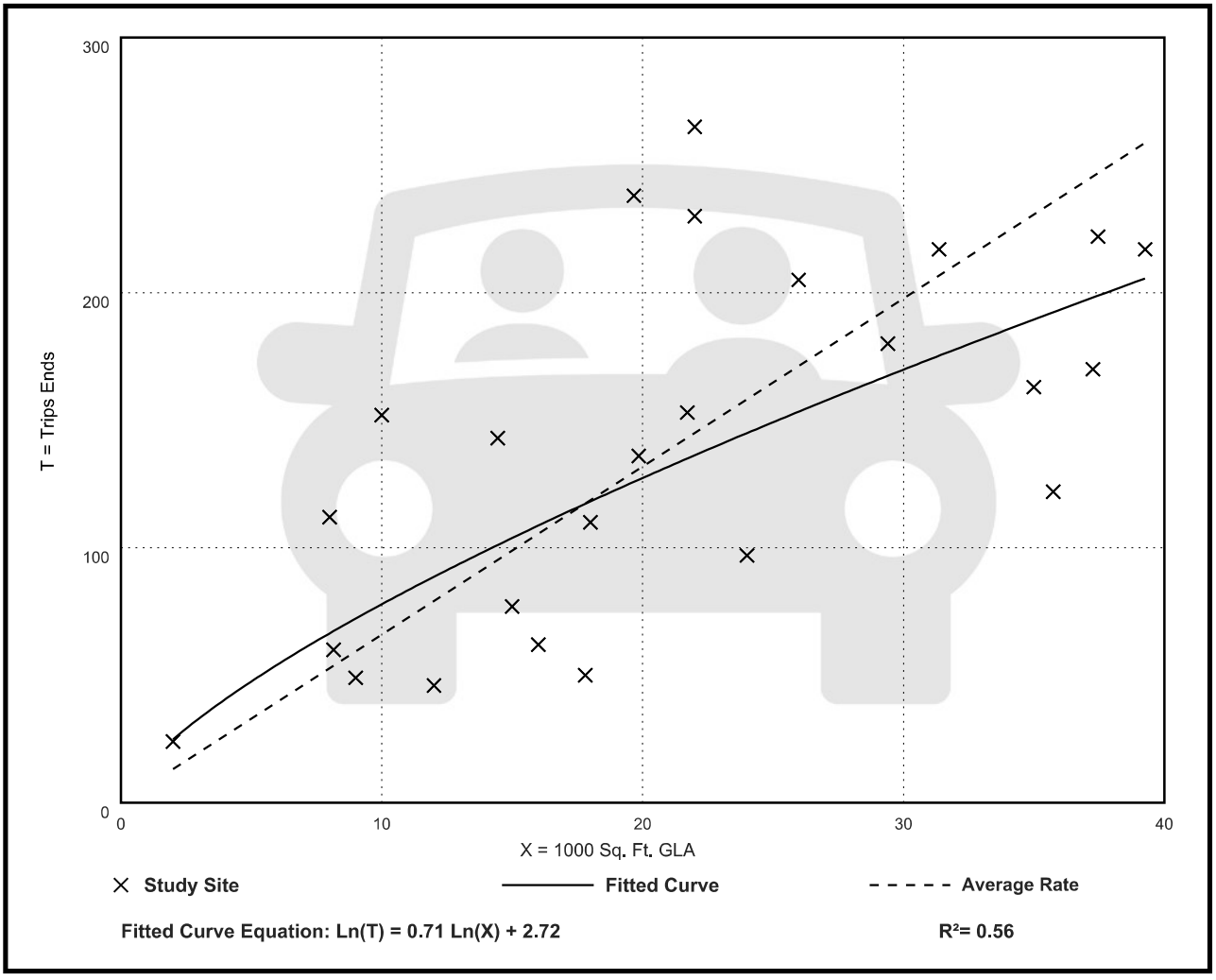
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) + 2.72

R^2= 0.56

Strip Retail Plaza (<40k)
(822)

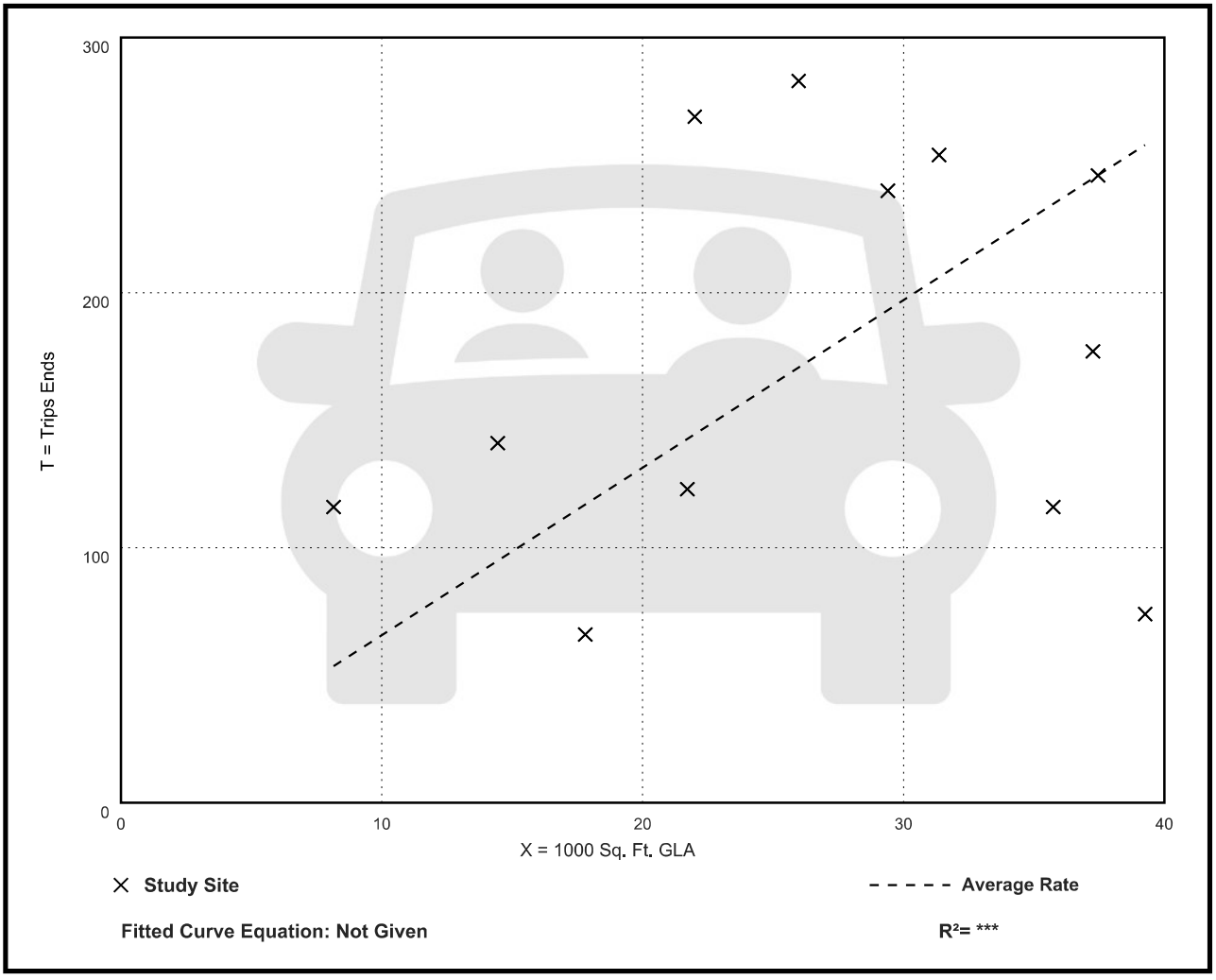
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GLA: 27
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.57	1.88 - 14.23	3.45

Data Plot and Equation



Land Use: 936
Coffee/Donut Shop without Drive-Through Window

Description

This land use includes any coffee and donut restaurant that does not have a drive-through window. The restaurant sells freshly brewed coffee (along with coffee-related accessories) and a variety of food/drink products such as donuts, bagels, breads, muffins, cakes, sandwiches, wraps, salads, and other hot and cold beverages. The restaurant marketing and sales may emphasize coffee beverages over food (or vice versa).

A coffee/donut shop typically holds long store hours (more than 15 hours) with an early morning opening. Limited indoor seating is generally provided for patrons, but table service is not provided.

Coffee/donut shop with drive-through window (Land Use 937) and coffee/donut shop with drive-through window and no indoor seating (Land Use 938) are related uses.

Additional Data

Many of the facilities in this land use were located within a shopping center or as an outparcel to a shopping center.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1990s, the 2000s, and the 2010s in California, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, and Vermont.

Specialized Land Use Data

One study provided data for a coffee/donut shop without a drive-through window that sells donuts and ice cream (source 563). The trip generating characteristics of this site differed from the sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site had a gross floor area of 2,400 square feet. It generated 48 vehicle trips during the weekday PM peak hour of adjacent street traffic and 52 vehicle trips during the weekday PM peak hour of the generator.

One study provided data for a coffee/donut shop without a drive-through window that sells donuts and sandwiches (source 563). The trip generating characteristics of this site differed from the sites included in this land use; therefore, trip generation information for this site is presented here and was excluded from the data plots. The site had a gross floor area of 4,000 square feet. It generated 239 vehicle trips during the weekday AM peak hour of adjacent street traffic, 52 vehicle trips during the weekday PM peak hour of adjacent street traffic, and 111 vehicle trips during the weekday PM peak hour of the generator.

Source Numbers

555, 563, 571, 594, 617, 618, 621, 728, 863, 902, 954, 955, 982, 1020

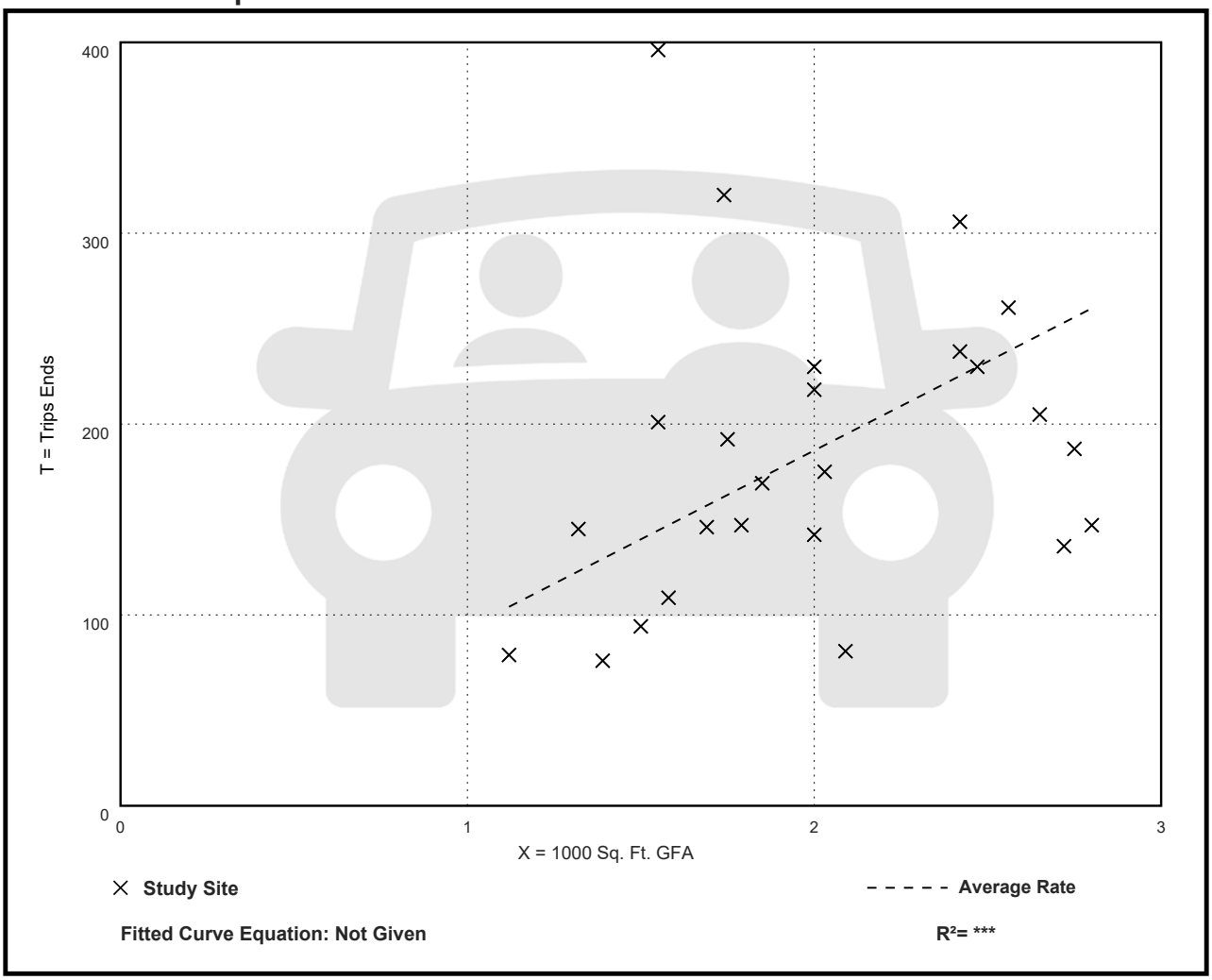
Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
93.08	38.76 - 255.48	42.71

Data Plot and Equation



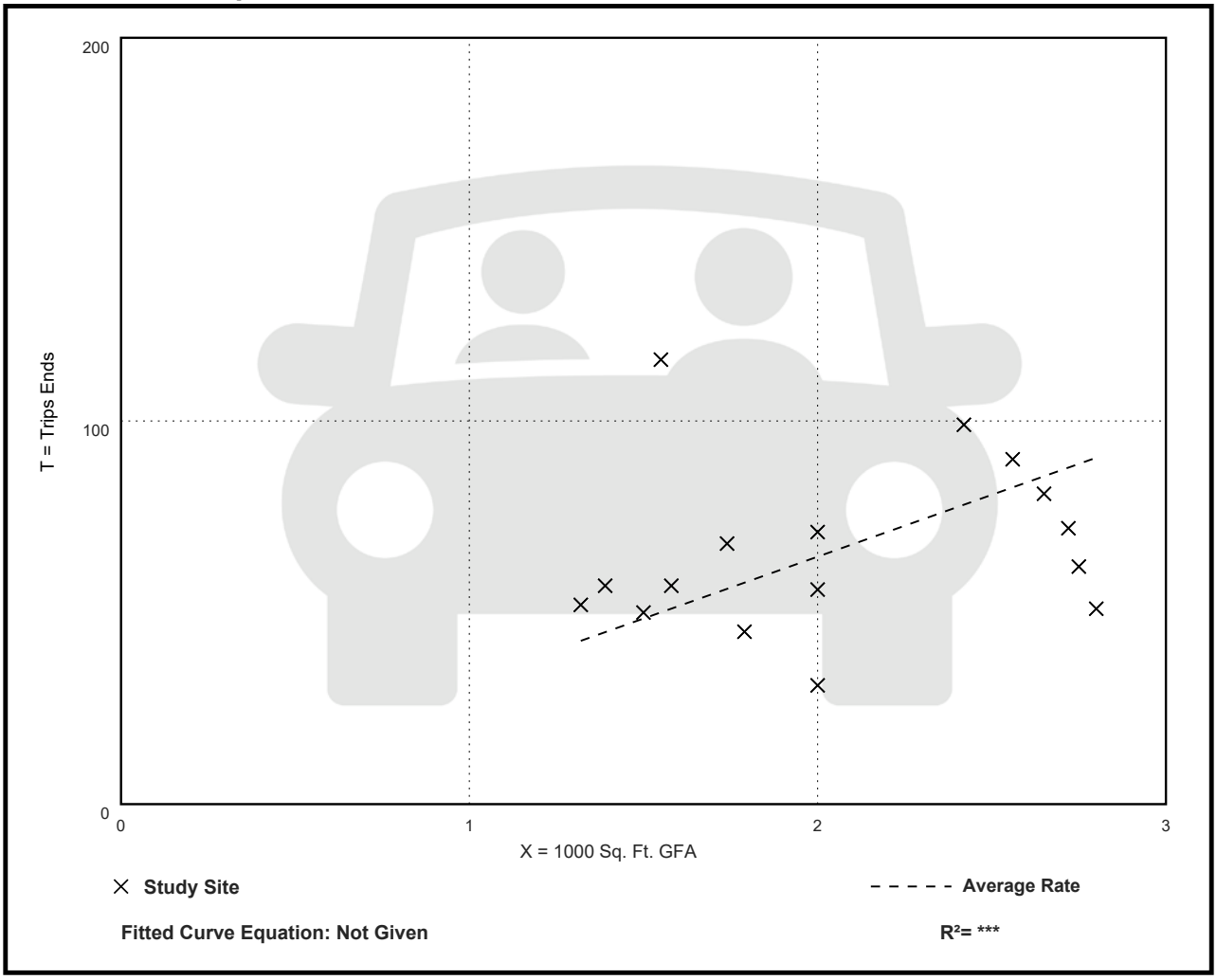
Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.29	15.50 - 74.84	12.64

Data Plot and Equation



Coffee/Donut Shop without Drive-Through Window (936)

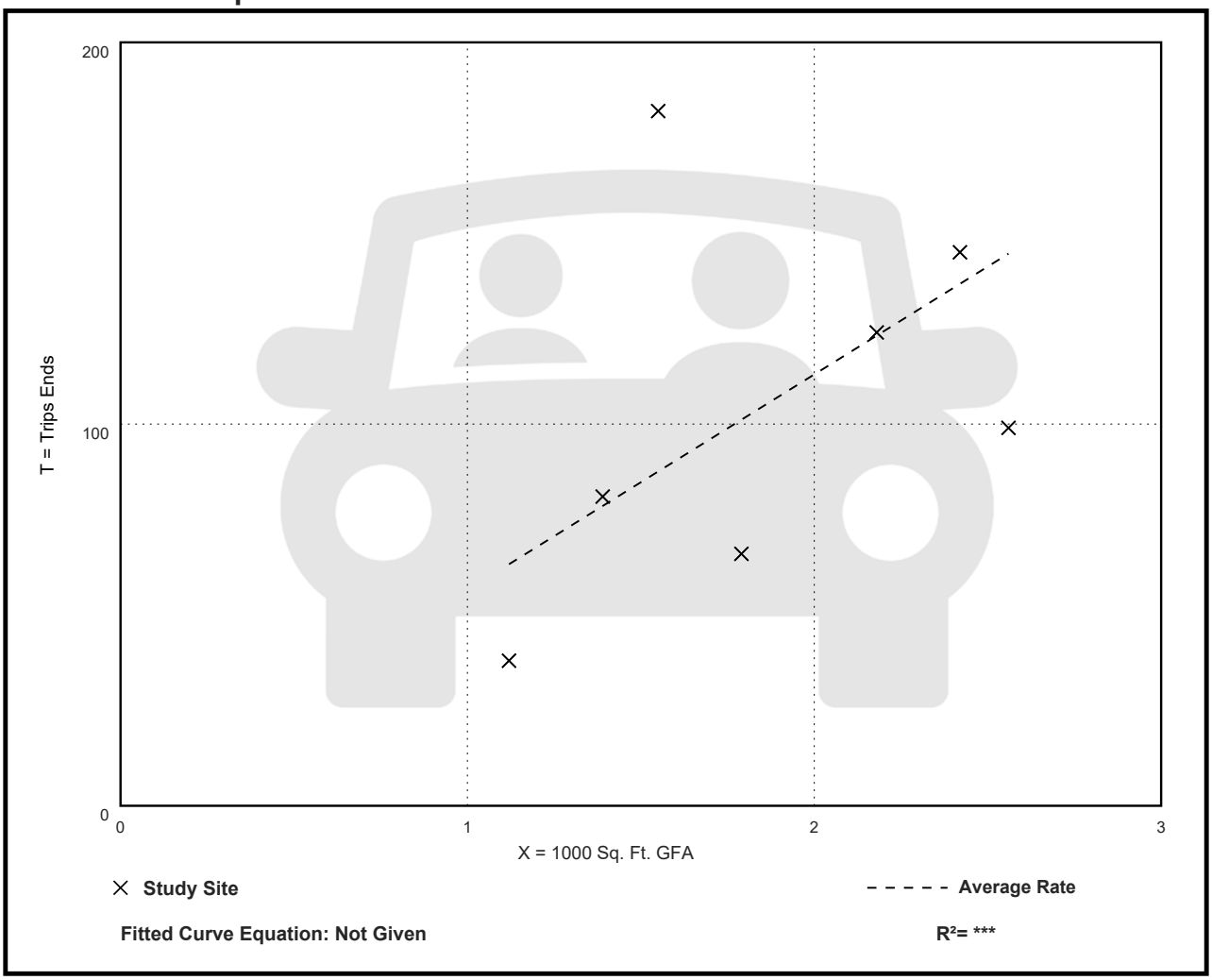
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.50	33.93 - 117.42	26.55

Data Plot and Equation



APPENDIX D

Level of Service (LOS) Definitions

LEVEL OF SERVICE[1]

Level of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. This concept was introduced in the 1965 *Highway Capacity Manual* as a criteria for interrupted flow conditions. The 2000 *Highway Capacity Manual* changed the basis for measuring Level of Service at intersections to control delay[2].

Six Levels of Service are defined with LOS A representing the best operating conditions, and LOS F the worst (briefly described below). It should be noted that there is often significant variability in the amount of delay experienced by individual drivers.

LOS A: This Level of Service describes the highest quality of traffic flow and is referred to as free flow. The approach appears open, turning movements are easily made and drivers have freedom of operation. Control delay is less than 10 seconds/vehicle.

LOS B: This Level of Service is referred to as a stable flow. Drivers feel somewhat restricted and occasionally may have to wait to complete the minor movement. Control delay is 10-15 seconds/vehicle for unsignalized intersections and 10-20 seconds/vehicle for signalized intersections.

LOS C: At this level, the operation is stable. Drivers feel more restricted and may have to wait, with queues developing for short periods. Control delay is 15-25 seconds/vehicle at unsignalized intersections and 20-35 seconds/vehicle at signalized intersections.

LOS D: At this level, traffic is approaching unstable flow. The motorist experiences increasing restriction and instability of flow. There are substantial delays to approaching vehicles during short peaks within the peak period, but there are enough gaps to lower demand to permit occasional clearance of developing queues and prevent excessive back-ups. Control delay is 25-35 seconds/vehicle at unsignalized intersections and 35-55 seconds/vehicle at signalized intersections.

LOS E: At this level capacity occurs. Long queues of vehicles exist and delays to vehicles may extend. Control delay is 35-50 seconds/vehicle at unsignalized intersections and 55-80 seconds/vehicle at signalized intersections.

LOS F: At this Level of Service, the intersection has failed. Capacity of the intersection has been exceeded. Control delay exceeds 50 seconds/vehicle at unsignalized intersections and exceeds 80 seconds/vehicle at signalized intersections.

---

[1] *Transportation Research Board: Highway Capacity Manual 1965, 2000*

[2] *Control delay is defined as the component of delay that results when a control signal causes a lane group to reduce speed or to stop; it is measured by comparison with the uncontrolled condition.*

APPENDIX E

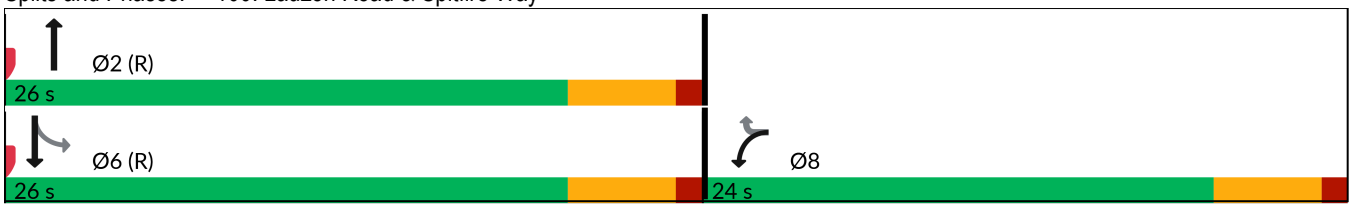
Synchro Analysis Worksheets

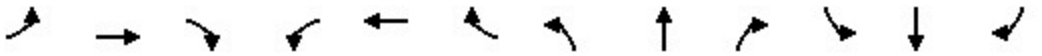
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	37	10	279	51	17	388
Future Volume (vph)	37	10	279	51	17	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.977			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1703	1468	3326	0	0	3494
Flt Permitted	0.950					0.938
Satd. Flow (perm)	1703	1468	3326	0	0	3284
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		11	51			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	10%	4%	2%	6%	3%
Adj. Flow (vph)	40	11	303	55	18	422
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	11	358	0	0	440
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	23.0		23.0	23.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	8.3	8.3	42.5			42.5
Actuated g/C Ratio	0.17	0.17	0.85			0.85
v/c Ratio	0.14	0.04	0.13			0.16
Control Delay (s/veh)	18.9	10.7	2.2			2.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	18.9	10.7	2.2			2.5
LOS	B	B	A			A
Approach Delay (s/veh)	17.1		2.2			2.5
Approach LOS	B		A			A
Queue Length 50th (m)	3.3	0.0	0.0			0.0
Queue Length 95th (m)	9.5	3.2	9.4			12.9
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	564	2832			2789
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.06	0.02	0.13			0.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 18 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.16			
Intersection Signal Delay (s/veh): 3.3		Intersection LOS: A	
Intersection Capacity Utilization 38.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	68	0	0	47	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	68	0	0	47	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	74	0	0	51	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	51			74			125	125	74	125	125	51
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	51			74			125	125	74	125	125	51
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1568			1538			854	769	993	854	769	1023

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	74	51	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1568	1538	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s/veh)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	6.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	68	0	0	47	0	0
Future Volume (Veh/h)	68	0	0	47	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	74	0	0	51	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			74		125	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			74		125	74
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1538		875	993

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	74	51	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1538	1700
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

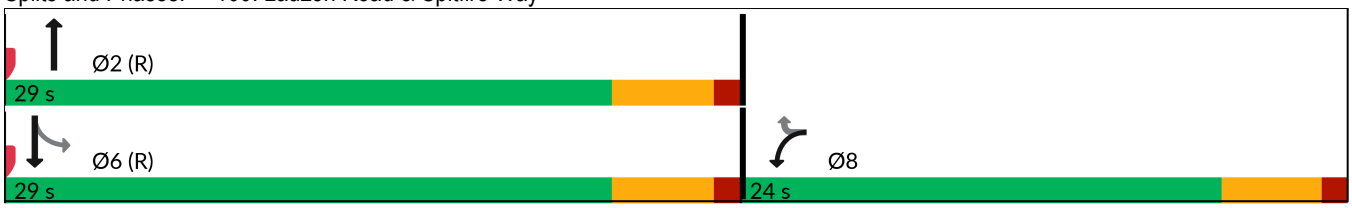
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		6.9%	ICU Level of Service
Analysis Period (min)		15	

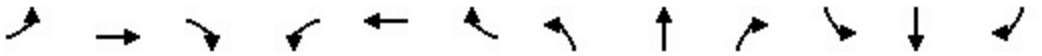
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	68	21	632	83	10	384
Future Volume (vph)	68	21	632	83	10	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.983			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1752	1615	3470	0	0	3597
Flt Permitted	0.950					0.937
Satd. Flow (perm)	1752	1615	3470	0	0	3374
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		23	35			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	0%	10%	0%
Adj. Flow (vph)	74	23	687	90	11	417
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	23	777	0	0	428
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	9.1	9.1	41.1			41.1
Actuated g/C Ratio	0.17	0.17	0.78			0.78
v/c Ratio	0.25	0.08	0.29			0.16
Control Delay (s/veh)	20.8	9.2	3.7			3.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	20.8	9.2	3.7			3.5
LOS	C	A	A			A
Approach Delay (s/veh)	18.0		3.7			3.5
Approach LOS	B		A			A
Queue Length 50th (m)	6.6	0.0	13.8			7.2
Queue Length 95th (m)	15.2	4.6	25.2			13.9
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	628	593	2701			2619
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.12	0.04	0.29			0.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay (s/veh): 4.7		Intersection LOS: A	
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	93	0	0	89	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	93	0	0	89	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	101	0	0	97	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	97			101			198	198	101	198	198	97
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	97			101			198	198	101	198	198	97
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1509			1504			765	701	960	765	701	965

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	101	97	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1509	1504	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s/veh)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	8.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	93	0	0	89	0	0
Future Volume (Veh/h)	93	0	0	89	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	0	0	97	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			101		198	101
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			101		198	101
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1504		795	960

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	101	97	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1504	1700
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

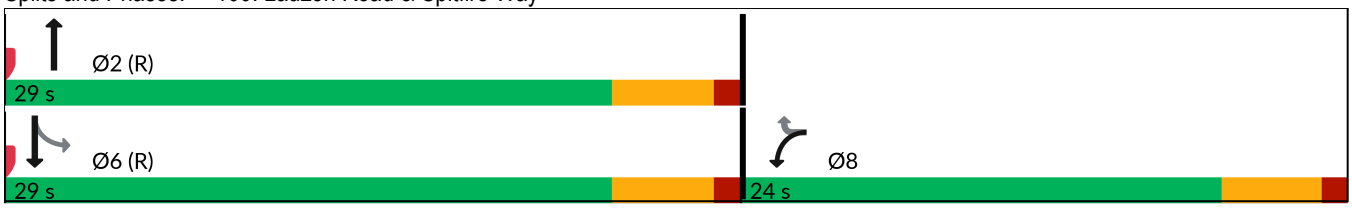
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		8.2%	ICU Level of Service
Analysis Period (min)		15	

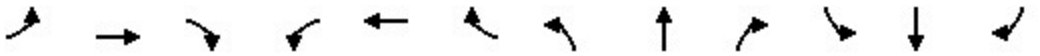
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	142	20	639	453	43	511
Future Volume (vph)	142	20	639	453	43	511
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.938			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1805	1615	3311	0	0	3596
Flt Permitted	0.950					0.817
Satd. Flow (perm)	1805	1615	3311	0	0	2949
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		22	439			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	154	22	695	492	47	555
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	22	1187	0	0	602
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.9	10.9	35.7			35.7
Actuated g/C Ratio	0.21	0.21	0.67			0.67
v/c Ratio	0.42	0.06	0.50			0.30
Control Delay (s/veh)	21.1	7.9	4.6			5.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.1	7.9	4.6			5.8
LOS	C	A	A			A
Approach Delay (s/veh)	19.5		4.6			5.8
Approach LOS	B		A			A
Queue Length 50th (m)	13.6	0.0	16.6			13.0
Queue Length 95th (m)	25.0	4.1	35.6			25.3
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	593	2373			1986
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.24	0.04	0.50			0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 6.3		Intersection LOS: A	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	496	0	0	162	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	496	0	0	162	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	539	0	0	176	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	176			539			715	715	539	715	715	176
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	176			539			715	715	539	715	715	176
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1412			1040			348	359	546	348	359	872

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	539	176	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1412	1040	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s/veh)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	29.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	496	0	0	162	0	0
Future Volume (Veh/h)	496	0	0	162	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	539	0	0	176	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			539		715	539
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			539		715	539
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1040		400	546

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	539	176	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1040	1700
Volume to Capacity	0.32	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

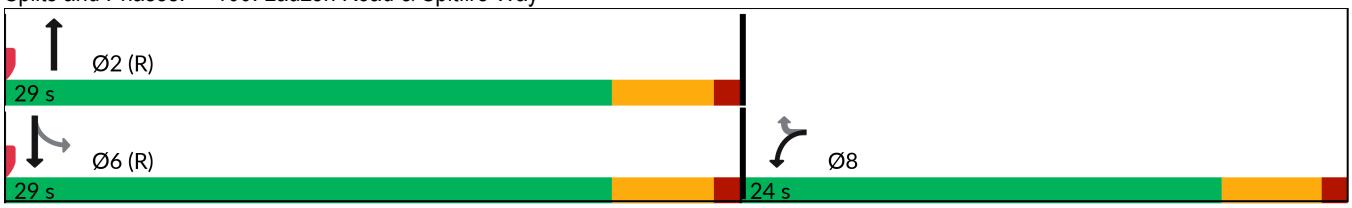
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		29.4%	ICU Level of Service
Analysis Period (min)		15	

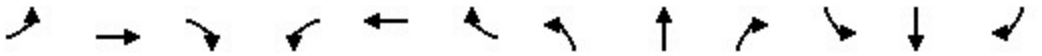
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	101	5	408	141	10	366
Future Volume (vph)	101	5	408	141	10	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.961			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1615	3392	0	0	3606
Flt Permitted	0.950					0.940
Satd. Flow (perm)	1770	1615	3392	0	0	3393
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5	118			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	110	5	443	153	11	398
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	5	596	0	0	409
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	9.9	9.9	36.7			36.7
Actuated g/C Ratio	0.19	0.19	0.69			0.69
v/c Ratio	0.33	0.02	0.25			0.17
Control Delay (s/veh)	21.0	11.2	3.9			4.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.0	11.2	3.9			4.5
LOS	C	B	A			A
Approach Delay (s/veh)	20.6		3.9			4.5
Approach LOS	C		A			A
Queue Length 50th (m)	9.8	0.0	8.7			7.3
Queue Length 95th (m)	19.9	2.1	17.7			14.7
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	634	582	2387			2352
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.17	0.01	0.25			0.17

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay (s/veh): 5.8		Intersection LOS: A	
Intersection Capacity Utilization 32.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	151	0	0	106	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	151	0	0	106	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	164	0	0	115	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	115			164			279	279	164	279	279	115
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			164			279	279	164	279	279	115
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1487			1427			677	632	886	677	632	943

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	164	115	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1487	1427	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s/veh)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	11.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	151	0	0	106	0	0
Future Volume (Veh/h)	151	0	0	106	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	164	0	0	115	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			164		279	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		279	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1427		715	886

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	164	115	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1427	1700
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

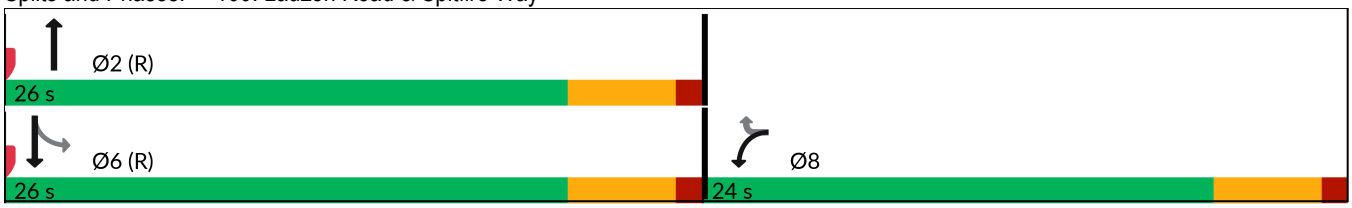
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		11.3%	ICU Level of Service
Analysis Period (min)		15	

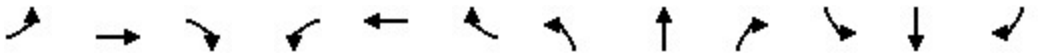
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	100	14	322	74	19	486
Future Volume (vph)	100	14	322	74	19	486
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.972			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1703	1468	3311	0	0	3494
Flt Permitted	0.950					0.934
Satd. Flow (perm)	1703	1468	3311	0	0	3270
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		15	68			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	10%	4%	2%	6%	3%
Adj. Flow (vph)	109	15	350	80	21	528
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	15	430	0	0	549
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	9.8	9.8	33.8			33.8
Actuated g/C Ratio	0.20	0.20	0.68			0.68
v/c Ratio	0.33	0.05	0.19			0.25
Control Delay (s/veh)	19.5	8.6	4.1			5.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	19.5	8.6	4.1			5.0
LOS	B	A	A			A
Approach Delay (s/veh)	18.2		4.1			5.0
Approach LOS	B		A			A
Queue Length 50th (m)	9.0	0.0	6.3			10.3
Queue Length 95th (m)	18.6	3.4	13.6			20.1
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	567	2261			2211
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.17	0.03	0.19			0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 18 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay (s/veh): 6.2		Intersection LOS: A	
Intersection Capacity Utilization 42.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	73	0	0	51	0	0	0	0	0	0	64
Future Volume (Veh/h)	19	73	0	0	51	0	0	0	0	0	0	64
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	79	0	0	55	0	0	0	0	0	0	70
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	55			79			246	176	79	176	176	55
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	55			79			246	176	79	176	176	55
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	100	100	93
cM capacity (veh/h)	1563			1532			656	711	987	783	711	1018

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	100	55	0	70
Volume Left	21	0	0	0
Volume Right	0	0	0	70
cSH	1563	1532	1700	1018
Volume to Capacity	0.01	0.00	0.00	0.07
Queue Length 95th (m)	0.3	0.0	0.0	1.8
Control Delay (s/veh)	1.6	0.0	0.0	8.8
Lane LOS	A		A	A
Approach Delay (s/veh)	1.6	0.0	0.0	8.8
Approach LOS			A	A

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	73	0	0	51	0	0
Future Volume (Veh/h)	73	0	0	51	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	0	0	55	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			79		134	79
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			79		134	79
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1532		864	987

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	79	55	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1532	1700
Volume to Capacity	0.05	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

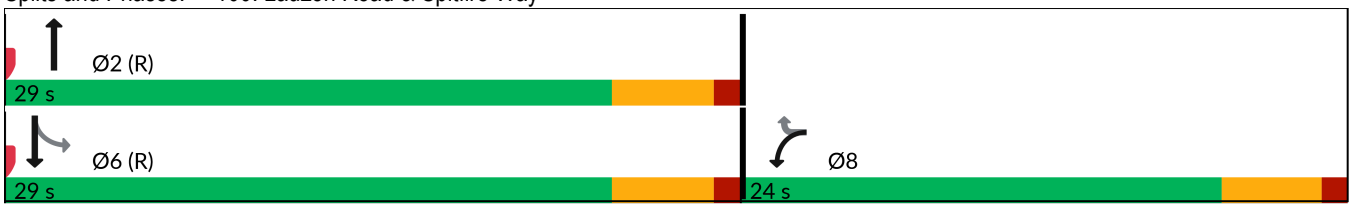
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		7.2%	ICU Level of Service
Analysis Period (min)		15	

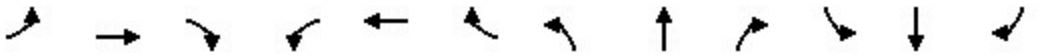
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	103	24	735	135	13	448
Future Volume (vph)	103	24	735	135	13	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.977			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1752	1615	3449	0	0	3596
Flt Permitted	0.950					0.927
Satd. Flow (perm)	1752	1615	3449	0	0	3337
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		26	52			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	0%	10%	0%
Adj. Flow (vph)	112	26	799	147	14	487
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	26	946	0	0	501
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.0	10.0	36.6			36.6
Actuated g/C Ratio	0.19	0.19	0.69			0.69
v/c Ratio	0.34	0.08	0.39			0.22
Control Delay (s/veh)	21.0	8.2	5.4			4.7

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.0	8.2	5.4			4.7
LOS	C	A	A			A
Approach Delay (s/veh)	18.6		5.4			4.7
Approach LOS	B		A			A
Queue Length 50th (m)	9.9	0.0	19.3			9.4
Queue Length 95th (m)	20.1	4.7	35.5			18.3
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	628	595	2400			2306
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.18	0.04	0.39			0.22

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay (s/veh): 6.3		Intersection LOS: A	
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	100	0	0	96	0	0	0	0	0	0	31
Future Volume (Veh/h)	48	100	0	0	96	0	0	0	0	0	0	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	109	0	0	104	0	0	0	0	0	0	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	104			109			351	317	109	317	317	104
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	104			109			351	317	109	317	317	104
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	96
cM capacity (veh/h)	1500			1494			570	582	950	623	582	956

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	161	104	0	34
Volume Left	52	0	0	0
Volume Right	0	0	0	34
cSH	1500	1494	1700	956
Volume to Capacity	0.03	0.00	0.00	0.04
Queue Length 95th (m)	0.9	0.0	0.0	0.9
Control Delay (s/veh)	2.6	0.0	0.0	8.9
Lane LOS	A		A	A
Approach Delay (s/veh)	2.6	0.0	0.0	8.9
Approach LOS			A	A

Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	24.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	100	0	0	96	0	0
Future Volume (Veh/h)	100	0	0	96	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	109	0	0	104	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			109		213	109
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			109		213	109
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1494		780	950

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	109	104	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1494	1700
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

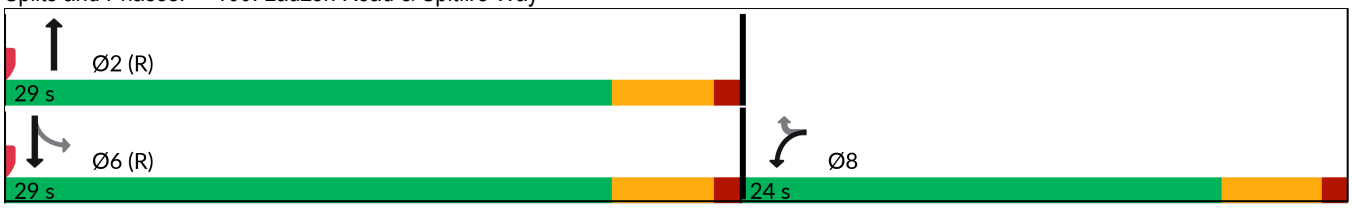
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	8.6%	ICU Level of Service	A
Analysis Period (min)	15		

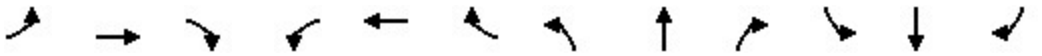
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	191	23	734	528	48	595
Future Volume (vph)	191	23	734	528	48	595
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.937			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1805	1615	3307	0	0	3596
Flt Permitted	0.950					0.789
Satd. Flow (perm)	1805	1615	3307	0	0	2848
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		25	448			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	208	25	798	574	52	647
Shared Lane Traffic (%)						
Lane Group Flow (vph)	208	25	1372	0	0	699
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	12.2	12.2	30.8			30.8
Actuated g/C Ratio	0.23	0.23	0.58			0.58
v/c Ratio	0.50	0.06	0.65			0.42
Control Delay (s/veh)	21.3	7.0	7.1			7.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	7.0	7.1			7.8
LOS	C	A	A			A
Approach Delay (s/veh)	19.8		7.1			7.8
Approach LOS	B		A			A
Queue Length 50th (m)	18.2	0.0	24.7			17.6
Queue Length 95th (m)	31.0	4.2	53.9			34.1
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	595	2109			1655
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.32	0.04	0.65			0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 8.6		Intersection LOS: A	
Intersection Capacity Utilization 72.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	534	0	0	175	0	0	0	0	0	0	40
Future Volume (Veh/h)	42	534	0	0	175	0	0	0	0	0	0	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	580	0	0	190	0	0	0	0	0	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	190			580			905	862	580	862	862	190
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	190			580			905	862	580	862	862	190
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	95
cM capacity (veh/h)	1396			1004			240	285	518	271	285	857

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	626	190	0	43
Volume Left	46	0	0	0
Volume Right	0	0	0	43
cSH	1396	1004	1700	857
Volume to Capacity	0.03	0.00	0.00	0.05
Queue Length 95th (m)	0.8	0.0	0.0	1.3
Control Delay (s/veh)	0.9	0.0	0.0	9.4
Lane LOS	A		A	A
Approach Delay (s/veh)	0.9	0.0	0.0	9.4
Approach LOS			A	A

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	53.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	534	0	0	175	0	0
Future Volume (Veh/h)	534	0	0	175	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	580	0	0	190	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			580		770	580
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			580		770	580
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1004		372	518

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	580	190	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1004	1700
Volume to Capacity	0.34	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

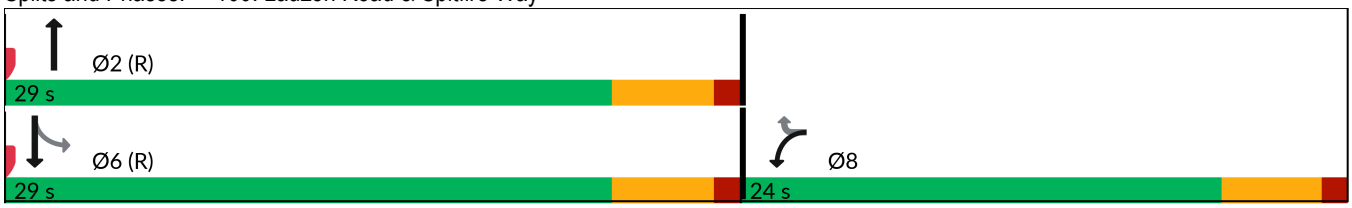
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		31.4%	ICU Level of Service
Analysis Period (min)		15	

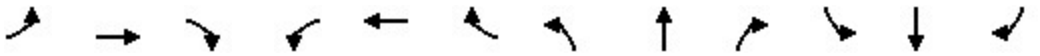
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	135	7	463	184	12	424
Future Volume (vph)	135	7	463	184	12	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.957			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1615	3378	0	0	3606
Flt Permitted	0.950					0.936
Satd. Flow (perm)	1770	1615	3378	0	0	3379
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		8	146			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	147	8	503	200	13	461
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	8	703	0	0	474
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.8	10.8	35.8			35.8
Actuated g/C Ratio	0.20	0.20	0.68			0.68
v/c Ratio	0.41	0.02	0.30			0.21
Control Delay (s/veh)	21.2	9.6	4.5			5.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.2	9.6	4.5			5.1
LOS	C	A	A			A
Approach Delay (s/veh)	20.6		4.5			5.1
Approach LOS	C		A			A
Queue Length 50th (m)	13.0	0.0	11.3			9.4
Queue Length 95th (m)	24.2	2.5	22.6			18.5
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	634	584	2329			2282
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.23	0.01	0.30			0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay (s/veh): 6.6		Intersection LOS: A	
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	163	0	0	114	0	0	0	0	0	0	27
Future Volume (Veh/h)	34	163	0	0	114	0	0	0	0	0	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	177	0	0	124	0	0	0	0	0	0	29
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	124			177			404	375	177	375	375	124
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	124			177			404	375	177	375	375	124
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	97
cM capacity (veh/h)	1475			1411			533	545	871	575	545	932

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	214	124	0	29
Volume Left	37	0	0	0
Volume Right	0	0	0	29
cSH	1475	1411	1700	932
Volume to Capacity	0.03	0.00	0.00	0.03
Queue Length 95th (m)	0.6	0.0	0.0	0.8
Control Delay (s/veh)	1.5	0.0	0.0	9.0
Lane LOS	A		A	A
Approach Delay (s/veh)	1.5	0.0	0.0	9.0
Approach LOS			A	A

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	27.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	163	0	0	114	0	0
Future Volume (Veh/h)	163	0	0	114	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	177	0	0	124	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			177		301	177
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			177		301	177
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1411		695	871

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	177	124	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1411	1700
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

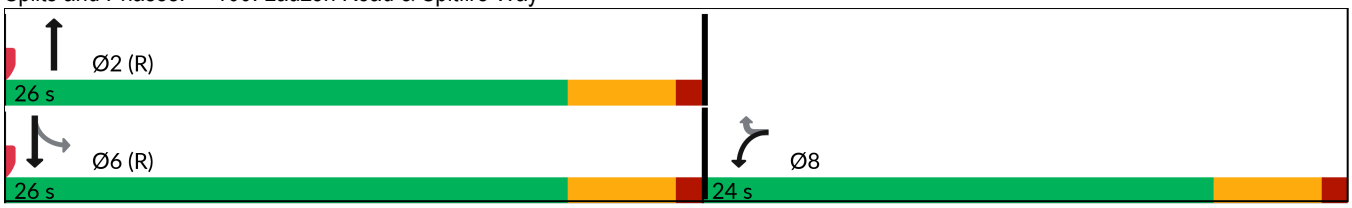
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		11.9%	ICU Level of Service
Analysis Period (min)		15	

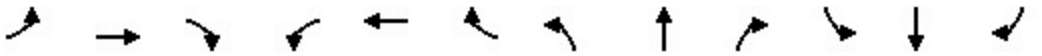
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	140	44	319	102	39	478
Future Volume (vph)	140	44	319	102	39	478
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.964			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1703	1468	3287	0	0	3483
Flt Permitted	0.950					0.901
Satd. Flow (perm)	1703	1468	3287	0	0	3151
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		48	106			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	10%	4%	2%	6%	3%
Adj. Flow (vph)	152	48	347	111	42	520
Shared Lane Traffic (%)						
Lane Group Flow (vph)	152	48	458	0	0	562
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.9	10.9	32.7			32.7
Actuated g/C Ratio	0.22	0.22	0.65			0.65
v/c Ratio	0.41	0.13	0.21			0.27
Control Delay (s/veh)	19.6	6.2	4.4			5.9

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	19.6	6.2	4.4			5.9
LOS	B	A	A			A
Approach Delay (s/veh)	16.4		4.4			5.9
Approach LOS	B		A			A
Queue Length 50th (m)	12.4	0.0	6.7			11.6
Queue Length 95th (m)	23.2	5.8	15.0			23.2
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	587	2188			2063
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.23	0.08	0.21			0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 18 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay (s/veh): 7.0		Intersection LOS: A	
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	114	14	2	108	3	33	1	3	3	0	43
Future Volume (Veh/h)	13	114	14	2	108	3	33	1	3	3	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	124	15	2	117	3	36	1	3	3	0	47
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	120			139			329	284	132	286	290	119
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	120			139			329	284	132	286	290	119
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			94	100	100	100	100	95
cM capacity (veh/h)	1480			1457			592	622	923	662	617	939

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	153	122	40	50
Volume Left	14	2	36	3
Volume Right	15	3	3	47
cSH	1480	1457	609	916
Volume to Capacity	0.00*	0.00*	0.07	0.05
Queue Length 95th (m)	0.2	0.0	1.7	1.4
Control Delay (s/veh)	0.8	0.1	11.3	9.2
Lane LOS	A	A	B	A
Approach Delay (s/veh)	0.8	0.1	11.3	9.2
Approach LOS			B	A

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	76	43	10	52	60	11
Future Volume (Veh/h)	76	43	10	52	60	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	47	11	57	65	12
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			130		186	107
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			130		186	107
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	99
cM capacity (veh/h)			1468		802	953

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	130	68	77
Volume Left	0	11	65
Volume Right	47	0	12
cSH	1700	1468	823
Volume to Capacity	0.08	0.00*	0.09
Queue Length 95th (m)	0.0	0.2	2.5
Control Delay (s/veh)	0.0	1.3	9.8
Lane LOS		A	A
Approach Delay (s/veh)	0.0	1.3	9.8
Approach LOS			A

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization		20.6%	ICU Level of Service A
Analysis Period (min)		15	

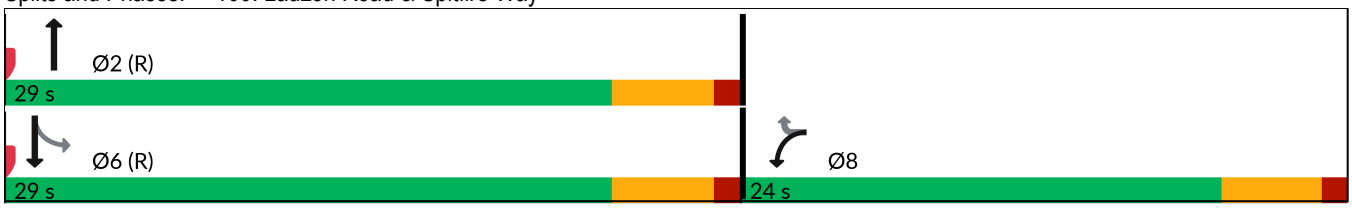
* Value less than 0.01.

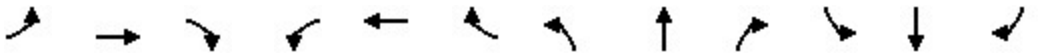
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	126	41	729	166	36	444
Future Volume (vph)	126	41	729	166	36	444
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.972			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1752	1615	3431	0	0	3569
Flt Permitted	0.950					0.854
Satd. Flow (perm)	1752	1615	3431	0	0	3060
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		45	67			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	0%	10%	0%
Adj. Flow (vph)	137	45	792	180	39	483
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	45	972	0	0	522
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.6	10.6	36.0			36.0
Actuated g/C Ratio	0.20	0.20	0.68			0.68
v/c Ratio	0.39	0.13	0.41			0.25
Control Delay (s/veh)	21.1	6.9	5.8			5.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.1	6.9	5.8			5.3
LOS	C	A	A			A
Approach Delay (s/veh)	17.6		5.8			5.3
Approach LOS	B		A			A
Queue Length 50th (m)	12.1	0.0	20.7			10.5
Queue Length 95th (m)	23.1	6.0	38.5			20.8
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	628	607	2352			2078
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.22	0.07	0.41			0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay (s/veh): 6.9		Intersection LOS: A	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	132	37	5	122	1	24	1	3	2	1	21
Future Volume (Veh/h)	33	132	37	5	122	1	24	1	3	2	1	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	143	40	5	133	1	26	1	3	2	1	23
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	134			183			402	379	163	382	399	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			183			402	379	163	382	399	134
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	100	100	100	100	98
cM capacity (veh/h)	1463			1404			536	541	887	565	527	921

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	219	139	30	26
Volume Left	36	5	26	2
Volume Right	40	1	3	23
cSH	1463	1404	558	855
Volume to Capacity	0.02	0.00*	0.05	0.03
Queue Length 95th (m)	0.6	0.1	1.4	0.8
Control Delay (s/veh)	1.4	0.3	11.8	9.3
Lane LOS	A	A	B	A
Approach Delay (s/veh)	1.4	0.3	11.8	9.3
Approach LOS			B	A

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	104	33	6	100	27	5
Future Volume (Veh/h)	104	33	6	100	27	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	36	7	109	29	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			149		254	131
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		254	131
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	99
cM capacity (veh/h)			1445		735	924

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	149	116	34
Volume Left	0	7	29
Volume Right	36	0	5
cSH	1700	1445	758
Volume to Capacity	0.09	0.00*	0.04
Queue Length 95th (m)	0.0	0.1	1.1
Control Delay (s/veh)	0.0	0.5	10.0
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.5	10.0
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

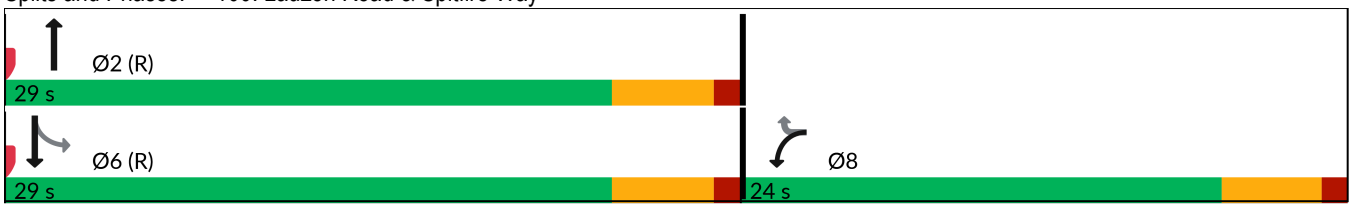
* Value less than 0.01.

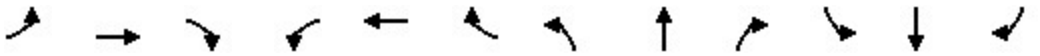
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	221	45	729	559	71	590
Future Volume (vph)	221	45	729	559	71	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.935			
Flt Protected	0.950					0.995
Satd. Flow (prot)	1805	1615	3300	0	0	3592
Flt Permitted	0.950					0.682
Satd. Flow (perm)	1805	1615	3300	0	0	2462
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		49	478			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	240	49	792	608	77	641
Shared Lane Traffic (%)						
Lane Group Flow (vph)	240	49	1400	0	0	718
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	13.1	13.1	29.9			29.9
Actuated g/C Ratio	0.25	0.25	0.56			0.56
v/c Ratio	0.54	0.11	0.68			0.52
Control Delay (s/veh)	21.3	5.5	7.7			9.7

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	5.5	7.7			9.7
LOS	C	A	A			A
Approach Delay (s/veh)	18.6		7.7			9.7
Approach LOS	B		A			A
Queue Length 50th (m)	20.9	0.0	26.3			20.3
Queue Length 95th (m)	34.2	5.6	58.3			40.6
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	610	2071			1389
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.37	0.08	0.68			0.52

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 9.6		Intersection LOS: A	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	572	29	3	214	2	25	1	3	2	1	27
Future Volume (Veh/h)	28	572	29	3	214	2	25	1	3	2	1	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	622	32	3	233	2	27	1	3	2	1	29
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	235			654			968	939	638	942	954	234
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	235			654			968	939	638	942	954	234
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			88	100	99	99	100	96
cM capacity (veh/h)	1344			943			222	259	480	238	254	810

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	684	238	31	32
Volume Left	30	3	27	2
Volume Right	32	2	3	29
cSH	1344	943	235	665
Volume to Capacity	0.02	0.00*	0.13	0.05
Queue Length 95th (m)	0.5	0.1	3.6	1.2
Control Delay (s/veh)	0.6	0.1	22.6	10.7
Lane LOS	A	A	C	B
Approach Delay (s/veh)	0.6	0.1	22.6	10.7
Approach LOS			C	B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	537	39	8	178	41	8
Future Volume (Veh/h)	537	39	8	178	41	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	584	42	9	193	45	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			626		816	605
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			626		816	605
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		87	98
cM capacity (veh/h)			965		346	501

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	626	202	54
Volume Left	0	9	45
Volume Right	42	0	9
cSH	1700	965	365
Volume to Capacity	0.37	0.00*	0.15
Queue Length 95th (m)	0.0	0.2	4.1
Control Delay (s/veh)	0.0	0.5	16.6
Lane LOS		A	C
Approach Delay (s/veh)	0.0	0.5	16.6
Approach LOS			C

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

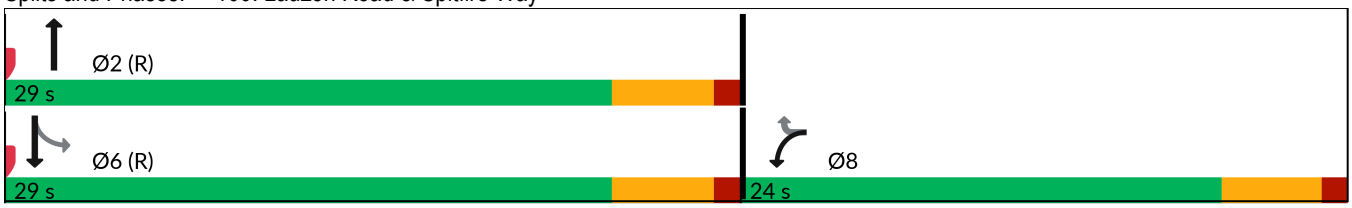
* Value less than 0.01.

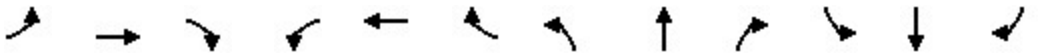
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	162	26	459	217	36	421
Future Volume (vph)	162	26	459	217	36	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.952			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1770	1615	3360	0	0	3596
Flt Permitted	0.950					0.874
Satd. Flow (perm)	1770	1615	3360	0	0	3155
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		28	194			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	176	28	499	236	39	458
Shared Lane Traffic (%)						
Lane Group Flow (vph)	176	28	735	0	0	497
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.5	11.5	35.1			35.1
Actuated g/C Ratio	0.22	0.22	0.66			0.66
v/c Ratio	0.46	0.08	0.32			0.24
Control Delay (s/veh)	21.3	7.1	4.6			5.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	7.1	4.6			5.8
LOS	C	A	A			A
Approach Delay (s/veh)	19.3		4.6			5.8
Approach LOS	B		A			A
Queue Length 50th (m)	15.5	0.0	11.6			10.6
Queue Length 95th (m)	27.4	4.5	23.7			21.1
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	634	596	2289			2088
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.28	0.05	0.32			0.24

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 7.1		Intersection LOS: A	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	199	31	5	147	2	23	1	4	2	1	18
Future Volume (Veh/h)	23	199	31	5	147	2	23	1	4	2	1	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	216	34	5	160	2	25	1	4	2	1	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	162			250			475	455	233	459	471	161
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	162			250			475	455	233	459	471	161
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	100	100	100	100	98
cM capacity (veh/h)	1429			1327			484	494	811	504	483	889

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	275	167	30	23
Volume Left	25	5	25	2
Volume Right	34	2	4	20
cSH	1429	1327	511	806
Volume to Capacity	0.02	0.00*	0.06	0.03
Queue Length 95th (m)	0.4	0.1	1.5	0.7
Control Delay (s/veh)	0.8	0.3	12.5	9.6
Lane LOS	A	A	B	A
Approach Delay (s/veh)	0.8	0.3	12.5	9.6
Approach LOS			B	A

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	37.5%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	166	38	8	119	34	7
Future Volume (Veh/h)	166	38	8	119	34	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	180	41	9	129	37	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			221		348	201
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			221		348	201
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	99
cM capacity (veh/h)			1360		649	846

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	221	138	45
Volume Left	0	9	37
Volume Right	41	0	8
cSH	1700	1360	677
Volume to Capacity	0.13	0.00*	0.07
Queue Length 95th (m)	0.0	0.2	1.7
Control Delay (s/veh)	0.0	0.6	10.7
Lane LOS		A	B
Approach Delay (s/veh)	0.0	0.6	10.7
Approach LOS			B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

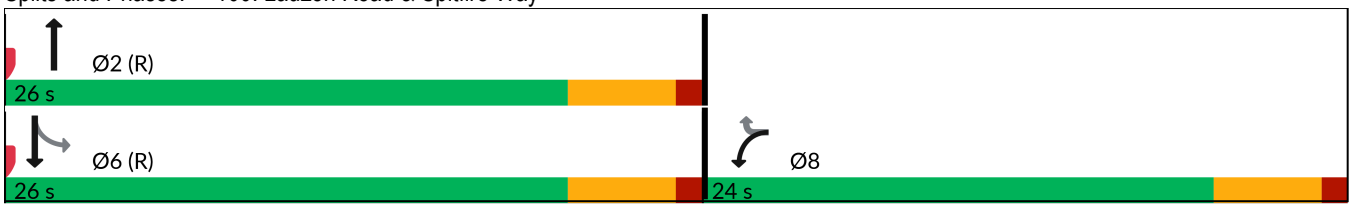
* Value less than 0.01.

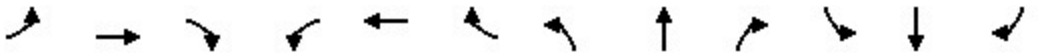
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	103	15	345	78	20	518
Future Volume (vph)	103	15	345	78	20	518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.972			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1703	1468	3311	0	0	3494
Flt Permitted	0.950					0.933
Satd. Flow (perm)	1703	1468	3311	0	0	3266
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		16	67			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	10%	4%	2%	6%	3%
Adj. Flow (vph)	112	16	375	85	22	563
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	16	460	0	0	585
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	9.8	9.8	33.8			33.8
Actuated g/C Ratio	0.20	0.20	0.68			0.68
v/c Ratio	0.33	0.05	0.20			0.27
Control Delay (s/veh)	19.5	8.6	4.2			5.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	19.5	8.6	4.2			5.2
LOS	B	A	A			A
Approach Delay (s/veh)	18.2		4.2			5.2
Approach LOS	B		A			A
Queue Length 50th (m)	9.2	0.0	7.0			11.2
Queue Length 95th (m)	18.9	3.5	14.7			21.8
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	567	2257			2205
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.17	0.03	0.20			0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 18 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay (s/veh): 6.2		Intersection LOS: A	
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	79	0	0	55	0	0	0	0	0	0	64
Future Volume (Veh/h)	19	79	0	0	55	0	0	0	0	0	0	64
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	86	0	0	60	0	0	0	0	0	0	70
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	60			86			258	188	86	188	188	60
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	60			86			258	188	86	188	188	60
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	100	100	93
cM capacity (veh/h)	1556			1523			644	701	978	769	701	1011

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	107	60	0	70
Volume Left	21	0	0	0
Volume Right	0	0	0	70
cSH	1556	1523	1700	1011
Volume to Capacity	0.01	0.00	0.00	0.07
Queue Length 95th (m)	0.3	0.0	0.0	1.8
Control Delay (s/veh)	1.5	0.0	0.0	8.8
Lane LOS	A		A	A
Approach Delay (s/veh)	1.5	0.0	0.0	8.8
Approach LOS			A	A

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	22.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	79	0	0	51	0	0
Future Volume (Veh/h)	79	0	0	51	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	86	0	0	55	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			86		141	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			86		141	86
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1523		857	978

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	86	55	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1523	1700
Volume to Capacity	0.05	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

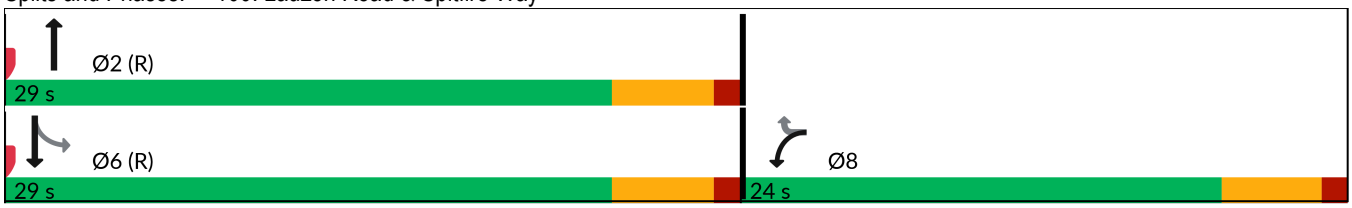
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	7.5%	ICU Level of Service	A
Analysis Period (min)	15		

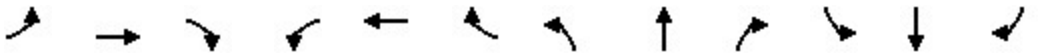
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	109	26	788	142	14	480
Future Volume (vph)	109	26	788	142	14	480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.977			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1752	1615	3449	0	0	3596
Flt Permitted	0.950					0.924
Satd. Flow (perm)	1752	1615	3449	0	0	3326
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		28	51			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	0%	10%	0%
Adj. Flow (vph)	118	28	857	154	15	522
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	28	1011	0	0	537
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.1	10.1	36.5			36.5
Actuated g/C Ratio	0.19	0.19	0.69			0.69
v/c Ratio	0.35	0.08	0.42			0.23
Control Delay (s/veh)	21.0	8.0	5.7			4.9

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.0	8.0	5.7			4.9
LOS	C	A	A			A
Approach Delay (s/veh)	18.5		5.7			4.9
Approach LOS	B		A			A
Queue Length 50th (m)	10.5	0.0	21.5			10.4
Queue Length 95th (m)	20.9	4.9	39.3			19.9
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	628	596	2389			2289
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.19	0.05	0.42			0.23

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 6.5		Intersection LOS: A	
Intersection Capacity Utilization 41.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	108	0	0	103	0	0	0	0	0	0	31
Future Volume (Veh/h)	48	108	0	0	103	0	0	0	0	0	0	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	117	0	0	112	0	0	0	0	0	0	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	112			117			367	333	117	333	333	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	112			117			367	333	117	333	333	112
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	96
cM capacity (veh/h)	1490			1484			556	570	941	608	570	947

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	169	112	0	34
Volume Left	52	0	0	0
Volume Right	0	0	0	34
cSH	1490	1484	1700	947
Volume to Capacity	0.03	0.00	0.00	0.04
Queue Length 95th (m)	0.9	0.0	0.0	0.9
Control Delay (s/veh)	2.5	0.0	0.0	8.9
Lane LOS	A		A	A
Approach Delay (s/veh)	2.5	0.0	0.0	8.9
Approach LOS			A	A

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	25.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	108	0	0	103	0	0
Future Volume (Veh/h)	108	0	0	103	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	117	0	0	112	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			117		229	117
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			117		229	117
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1484		764	941

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	117	112	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1484	1700
Volume to Capacity	0.07	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

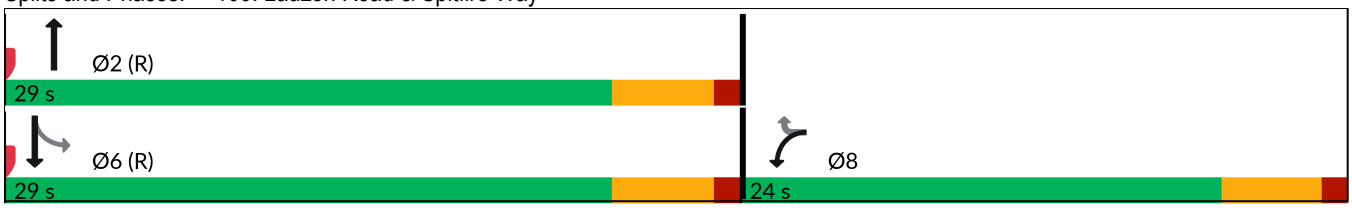
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		9.0%	ICU Level of Service
Analysis Period (min)		15	

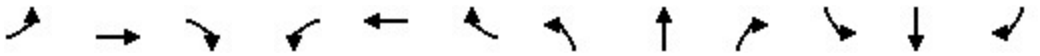
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	203	25	788	566	52	637
Future Volume (vph)	203	25	788	566	52	637
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.937			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1805	1615	3307	0	0	3596
Flt Permitted	0.950					0.742
Satd. Flow (perm)	1805	1615	3307	0	0	2679
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		27	446			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	221	27	857	615	57	692
Shared Lane Traffic (%)						
Lane Group Flow (vph)	221	27	1472	0	0	749
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	12.6	12.6	30.4			30.4
Actuated g/C Ratio	0.24	0.24	0.57			0.57
v/c Ratio	0.52	0.07	0.70			0.49
Control Delay (s/veh)	21.3	6.5	8.4			8.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	6.5	8.4			8.8
LOS	C	A	A			A
Approach Delay (s/veh)	19.7		8.4			8.8
Approach LOS	B		A			A
Queue Length 50th (m)	19.3	0.0	30.3			20.2
Queue Length 95th (m)	32.3	4.2	65.3			39.5
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	596	2088			1537
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.34	0.05	0.70			0.49

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 9.7		Intersection LOS: A	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	576	0	0	188	0	0	0	0	0	0	40
Future Volume (Veh/h)	42	576	0	0	188	0	0	0	0	0	0	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	626	0	0	204	0	0	0	0	0	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	204			626			965	922	626	922	922	204
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	204			626			965	922	626	922	922	204
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	95
cM capacity (veh/h)	1380			965			219	263	488	246	263	842

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	672	204	0	43
Volume Left	46	0	0	0
Volume Right	0	0	0	43
cSH	1380	965	1700	842
Volume to Capacity	0.03	0.00	0.00	0.05
Queue Length 95th (m)	0.8	0.0	0.0	1.3
Control Delay (s/veh)	0.9	0.0	0.0	9.5
Lane LOS	A		A	A
Approach Delay (s/veh)	0.9	0.0	0.0	9.5
Approach LOS			A	A

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	55.9%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	576	0	0	188	0	0
Future Volume (Veh/h)	576	0	0	188	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	626	0	0	204	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			626		830	626
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			626		830	626
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			965		343	488

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	626	204	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	965	1700
Volume to Capacity	0.37	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

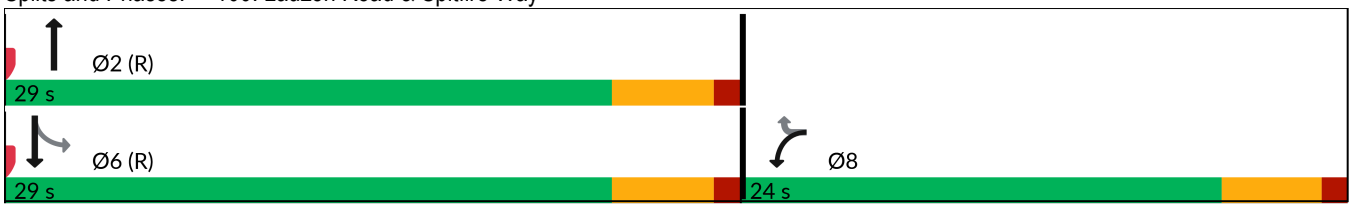
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		33.6%	ICU Level of Service
Analysis Period (min)		15	

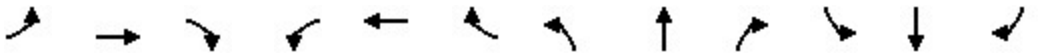
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	143	7	497	196	13	455
Future Volume (vph)	143	7	497	196	13	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.958			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1615	3382	0	0	3606
Flt Permitted	0.950					0.933
Satd. Flow (perm)	1770	1615	3382	0	0	3368
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		8	144			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	155	8	540	213	14	495
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	8	753	0	0	509
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.0	11.0	35.6			35.6
Actuated g/C Ratio	0.21	0.21	0.67			0.67
v/c Ratio	0.42	0.02	0.32			0.23
Control Delay (s/veh)	21.2	9.4	4.8			5.4

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.2	9.4	4.8			5.4
LOS	C	A	A			A
Approach Delay (s/veh)	20.6		4.8			5.4
Approach LOS	C		A			A
Queue Length 50th (m)	13.7	0.0	12.9			10.4
Queue Length 95th (m)	25.2	2.4	25.6			20.3
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	634	584	2317			2261
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.24	0.01	0.32			0.23

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 6.8		Intersection LOS: A	
Intersection Capacity Utilization 38.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	175	0	0	123	0	0	0	0	0	0	27
Future Volume (Veh/h)	34	175	0	0	123	0	0	0	0	0	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	190	0	0	134	0	0	0	0	0	0	29
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	134			190			427	398	190	398	398	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			190			427	398	190	398	398	134
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	100	100	97
cM capacity (veh/h)	1463			1396			514	529	857	555	529	920

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	227	134	0	29
Volume Left	37	0	0	0
Volume Right	0	0	0	29
cSH	1463	1396	1700	920
Volume to Capacity	0.03	0.00	0.00	0.03
Queue Length 95th (m)	0.6	0.0	0.0	0.8
Control Delay (s/veh)	1.4	0.0	0.0	9.0
Lane LOS	A		A	A
Approach Delay (s/veh)	1.4	0.0	0.0	9.0
Approach LOS			A	A

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	30.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	175	0	0	123	0	0
Future Volume (Veh/h)	175	0	0	123	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	190	0	0	134	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			190		324	190
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			190		324	190
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1396		674	857

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	190	134	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1396	1700
Volume to Capacity	0.11	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	0.0
Approach LOS			A

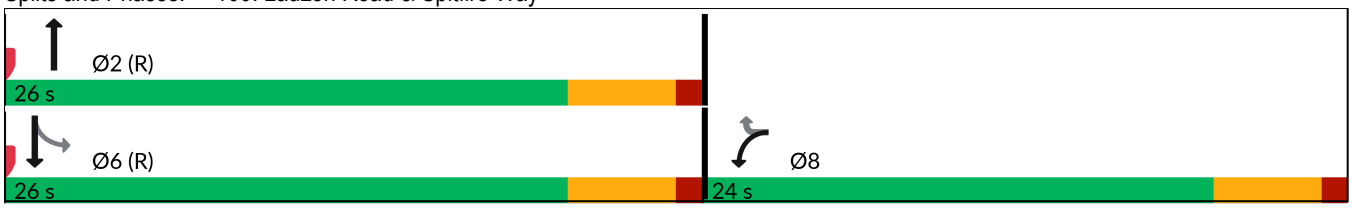
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		12.5%	ICU Level of Service
Analysis Period (min)		15	

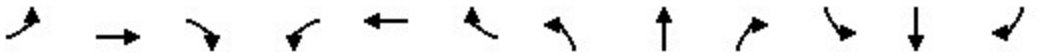
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	143	45	342	106	40	510
Future Volume (vph)	143	45	342	106	40	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.965			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1703	1468	3290	0	0	3484
Flt Permitted	0.950					0.900
Satd. Flow (perm)	1703	1468	3290	0	0	3148
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		49	101			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	10%	4%	2%	6%	3%
Adj. Flow (vph)	155	49	372	115	43	554
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	49	487	0	0	597
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	26.0		26.0	26.0
Total Split (%)	48.0%	48.0%	52.0%		52.0%	52.0%
Maximum Green (s)	19.0	19.0	21.0		21.0	21.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.9	10.9	32.7			32.7
Actuated g/C Ratio	0.22	0.22	0.65			0.65
v/c Ratio	0.42	0.14	0.22			0.29
Control Delay (s/veh)	19.6	6.2	4.6			6.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	19.6	6.2	4.6			6.0
LOS	B	A	A			A
Approach Delay (s/veh)	16.4		4.6			6.0
Approach LOS	B		A			A
Queue Length 50th (m)	12.6	0.0	7.5			12.6
Queue Length 95th (m)	23.5	5.8	16.3			25.0
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	588	2184			2056
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.24	0.08	0.22			0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 18 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 7.1		Intersection LOS: A	
Intersection Capacity Utilization 48.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	120	14	2	112	3	33	1	3	3	0	18
Future Volume (Veh/h)	13	120	14	2	112	3	33	1	3	3	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	130	15	2	122	3	36	1	3	3	0	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	125			145			313	295	138	297	301	124
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	125			145			313	295	138	297	301	124
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			94	100	100	100	100	98
cM capacity (veh/h)	1474			1450			624	613	916	651	609	933

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	159	127	40	23
Volume Left	14	2	36	3
Volume Right	15	3	3	20
cSH	1474	1450	639	883
Volume to Capacity	0.00*	0.00*	0.06	0.03
Queue Length 95th (m)	0.2	0.0	1.6	0.6
Control Delay (s/veh)	0.7	0.1	11.0	9.2
Lane LOS	A	A	B	A
Approach Delay (s/veh)	0.7	0.1	11.0	9.2
Approach LOS			B	A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	43	10	52	60	11
Future Volume (Veh/h)	82	43	10	52	60	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	89	47	11	57	65	12
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			136		192	113
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			136		192	113
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	99
cM capacity (veh/h)			1461		796	946

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	136	68	77
Volume Left	0	11	65
Volume Right	47	0	12
cSH	1700	1461	816
Volume to Capacity	0.08	0.00*	0.09
Queue Length 95th (m)	0.0	0.2	2.5
Control Delay (s/veh)	0.0	1.3	9.9
Lane LOS		A	A
Approach Delay (s/veh)	0.0	1.3	9.9
Approach LOS			A

Intersection Summary			
Average Delay		3.0	
Intersection Capacity Utilization		21.9%	ICU Level of Service A
Analysis Period (min)		15	

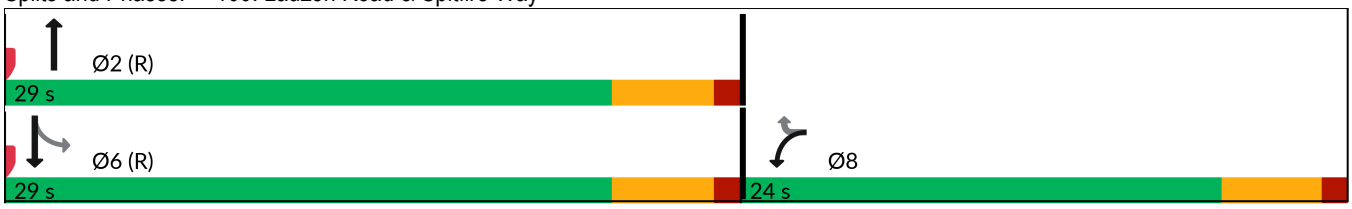
* Value less than 0.01.

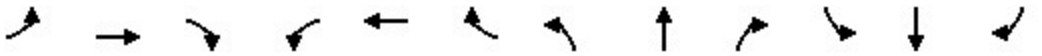
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	132	42	781	173	37	476
Future Volume (vph)	132	42	781	173	37	476
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.973			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1752	1615	3434	0	0	3570
Flt Permitted	0.950					0.849
Satd. Flow (perm)	1752	1615	3434	0	0	3043
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		46	65			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	0%	10%	0%
Adj. Flow (vph)	143	46	849	188	40	517
Shared Lane Traffic (%)						
Lane Group Flow (vph)	143	46	1037	0	0	557
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	10.7	10.7	35.9			35.9
Actuated g/C Ratio	0.20	0.20	0.68			0.68
v/c Ratio	0.40	0.13	0.44			0.27
Control Delay (s/veh)	21.2	6.7	6.1			5.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.2	6.7	6.1			5.5
LOS	C	A	A			A
Approach Delay (s/veh)	17.7		6.1			5.5
Approach LOS	B		A			A
Queue Length 50th (m)	12.6	0.0	23.0			11.5
Queue Length 95th (m)	23.9	6.0	42.9			22.5
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	628	608	2345			2060
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.23	0.08	0.44			0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay (s/veh): 7.1		Intersection LOS: A	
Intersection Capacity Utilization 57.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	140	37	5	129	1	24	1	3	2	1	21
Future Volume (Veh/h)	33	140	37	5	129	1	24	1	3	2	1	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	152	40	5	140	1	26	1	3	2	1	23
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	141			192			418	395	172	398	415	141
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	141			192			418	395	172	398	415	141
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	100	100	100	100	97
cM capacity (veh/h)	1455			1394			523	530	877	551	516	913

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	228	146	30	26
Volume Left	36	5	26	2
Volume Right	40	1	3	23
cSH	1455	1394	545	845
Volume to Capacity	0.02	0.00*	0.06	0.03
Queue Length 95th (m)	0.6	0.1	1.4	0.8
Control Delay (s/veh)	1.4	0.3	12.0	9.4
Lane LOS	A	A	B	A
Approach Delay (s/veh)	1.4	0.3	12.0	9.4
Approach LOS			B	A

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	36.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	111	33	6	108	27	5
Future Volume (Veh/h)	111	33	6	108	27	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	36	7	117	29	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			157		270	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			157		270	139
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	99
cM capacity (veh/h)			1435		720	915

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	157	124	34
Volume Left	0	7	29
Volume Right	36	0	5
cSH	1700	1435	743
Volume to Capacity	0.09	0.00*	0.05
Queue Length 95th (m)	0.0	0.1	1.1
Control Delay (s/veh)	0.0	0.5	10.1
Lane LOS		A	B
Approach Delay (s/veh)	0.0	0.5	10.1
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

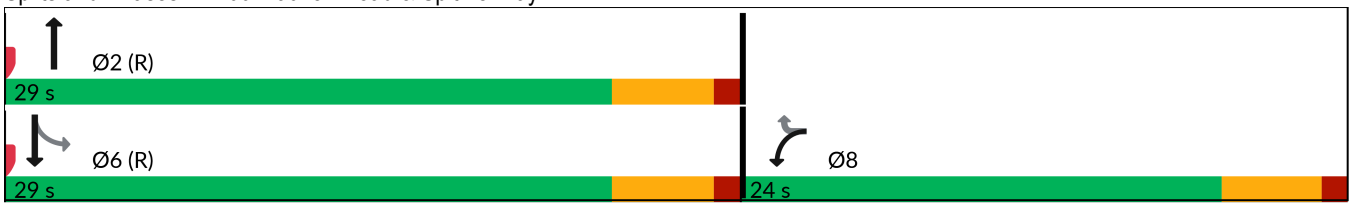
* Value less than 0.01.

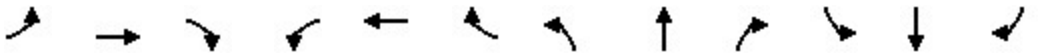
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	233	47	782	596	74	632
Future Volume (vph)	233	47	782	596	74	632
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.935			
Flt Protected	0.950					0.995
Satd. Flow (prot)	1805	1615	3300	0	0	3592
Flt Permitted	0.950					0.652
Satd. Flow (perm)	1805	1615	3300	0	0	2354
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		51	473			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	253	51	850	648	80	687
Shared Lane Traffic (%)						
Lane Group Flow (vph)	253	51	1498	0	0	767
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	13.4	13.4	29.6			29.6
Actuated g/C Ratio	0.25	0.25	0.56			0.56
v/c Ratio	0.55	0.11	0.73			0.58
Control Delay (s/veh)	21.3	5.3	9.5			11.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	5.3	9.5			11.0
LOS	C	A	A			B
Approach Delay (s/veh)	18.6		9.5			11.0
Approach LOS	B		A			B
Queue Length 50th (m)	21.9	0.0	32.3			23.2
Queue Length 95th (m)	35.5	5.6	#72.2			47.0
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	647	611	2049			1312
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.39	0.08	0.73			0.58

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay (s/veh): 11.0		Intersection LOS: B	
Intersection Capacity Utilization 85.8%		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: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	613	29	3	227	2	25	1	3	2	1	27
Future Volume (Veh/h)	28	613	29	3	227	2	25	1	3	2	1	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	666	32	3	247	2	27	1	3	2	1	29
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	249			698			1026	997	682	1000	1012	248
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	249			698			1026	997	682	1000	1012	248
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			87	100	99	99	100	96
cM capacity (veh/h)	1328			908			202	240	453	217	235	796

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	728	252	31	32
Volume Left	30	3	27	2
Volume Right	32	2	3	29
cSH	1328	908	215	641
Volume to Capacity	0.02	0.00*	0.14	0.05
Queue Length 95th (m)	0.6	0.1	4.0	1.3
Control Delay (s/veh)	0.6	0.1	24.5	10.9
Lane LOS	A	A	C	B
Approach Delay (s/veh)	0.6	0.1	24.5	10.9
Approach LOS			C	B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	579	39	8	191	41	8
Future Volume (Veh/h)	579	39	8	191	41	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	629	42	9	208	45	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			671		876	650
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			671		876	650
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		86	98
cM capacity (veh/h)			929		319	473

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	671	217	54
Volume Left	0	9	45
Volume Right	42	0	9
cSH	1700	929	337
Volume to Capacity	0.39	0.00*	0.16
Queue Length 95th (m)	0.0	0.2	4.5
Control Delay (s/veh)	0.0	0.5	17.7
Lane LOS		A	C
Approach Delay (s/veh)	0.0	0.5	17.7
Approach LOS			C

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

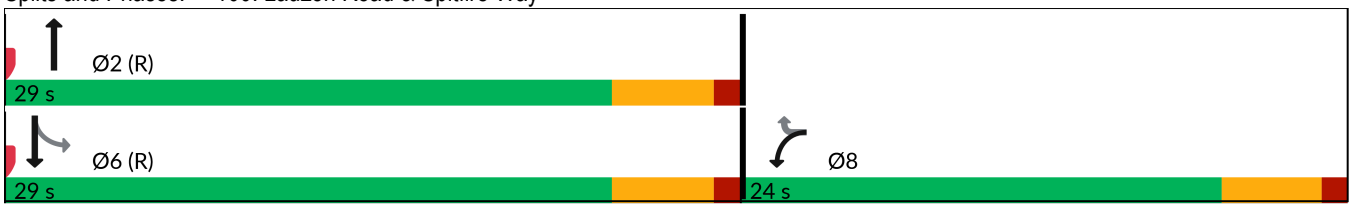
* Value less than 0.01.

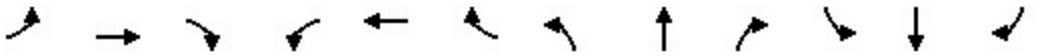
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	170	27	493	228	36	451
Future Volume (vph)	170	27	493	228	36	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.6	3.4	3.4	3.4	3.6
Storage Length (m)	25.0	0.0		0.0	0.0	
Storage Lanes	1	1		0	0	
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.953			
Flt Protected	0.950					0.996
Satd. Flow (prot)	1770	1615	3364	0	0	3596
Flt Permitted	0.950					0.872
Satd. Flow (perm)	1770	1615	3364	0	0	3148
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		29	187			
Link Speed (k/h)	50		50			50
Link Distance (m)	91.1		117.6			270.3
Travel Time (s)	6.6		8.5			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	185	29	536	248	39	490
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	29	784	0	0	529
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	10.0		10.0	10.0
Minimum Split (s)	23.0	23.0	19.0		19.0	19.0
Total Split (s)	24.0	24.0	29.0		29.0	29.0
Total Split (%)	45.3%	45.3%	54.7%		54.7%	54.7%
Maximum Green (s)	19.0	19.0	24.0		24.0	24.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.0	5.0	5.0			5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0	4.0	4.0		4.0	4.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0
Flash Don't Walk (s)	11.0	11.0	7.0		7.0	7.0
Pedestrian Calls (#/hr)	0	0	0		0	0
Act Effct Green (s)	11.8	11.8	34.8			34.8
Actuated g/C Ratio	0.22	0.22	0.66			0.66
v/c Ratio	0.47	0.08	0.34			0.26
Control Delay (s/veh)	21.3	6.9	5.0			6.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0			0.0
Total Delay (s/veh)	21.3	6.9	5.0			6.0
LOS	C	A	A			A
Approach Delay (s/veh)	19.3		5.0			6.0
Approach LOS	B		A			A
Queue Length 50th (m)	16.2	0.0	13.3			11.6
Queue Length 95th (m)	28.4	4.6	26.9			23.0
Internal Link Dist (m)	67.1		93.6			246.3
Turn Bay Length (m)	25.0					
Base Capacity (vph)	634	597	2275			2069
Starvation Cap Reductn	0	0	0			0
Spillback Cap Reductn	0	0	0			0
Storage Cap Reductn	0	0	0			0
Reduced v/c Ratio	0.29	0.05	0.34			0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 53			
Actuated Cycle Length: 53			
Offset: 20 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay (s/veh): 7.3		Intersection LOS: A	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 100: Lauzon Road & Spitfire Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	211	31	5	156	2	23	1	4	2	1	18
Future Volume (Veh/h)	23	211	31	5	156	2	23	1	4	2	1	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	229	34	5	170	2	25	1	4	2	1	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		91										
pX, platoon unblocked												
vC, conflicting volume	172			263			498	478	246	482	494	171
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	172			263			498	478	246	482	494	171
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	100	99	100	100	98
cM capacity (veh/h)	1417			1313			467	479	798	487	469	878

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	288	177	30	23
Volume Left	25	5	25	2
Volume Right	34	2	4	20
cSH	1417	1313	495	793
Volume to Capacity	0.02	0.00*	0.06	0.03
Queue Length 95th (m)	0.4	0.1	1.5	0.7
Control Delay (s/veh)	0.8	0.3	12.7	9.7
Lane LOS	A	A	B	A
Approach Delay (s/veh)	0.8	0.3	12.7	9.7
Approach LOS			B	A

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	38.4%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	179	38	8	128	34	7
Future Volume (Veh/h)	179	38	8	128	34	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	195	41	9	139	37	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	169					
pX, platoon unblocked						
vC, conflicting volume			236		373	216
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			236		373	216
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	99
cM capacity (veh/h)			1343		628	829

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	236	148	45
Volume Left	0	9	37
Volume Right	41	0	8
cSH	1700	1343	656
Volume to Capacity	0.14	0.00*	0.07
Queue Length 95th (m)	0.0	0.2	1.8
Control Delay (s/veh)	0.0	0.5	10.9
Lane LOS		A	B
Approach Delay (s/veh)	0.0	0.5	10.9
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.