Lauzon Parkway Improvements
Class Environmental Assessment
G.W.P. 3117-09-00

Traffic Analysis Report
Existing Conditions

November 2013

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EXECUTIVE SUMMARY

The Ministry of Transportation, the City of Windsor and the County of Essex have initiated a Class Environmental Assessment Study to address the future requirements for Lauzon Parkway. The study includes the environmental assessment and preliminary design for Lauzon Parkway from E.C. Row Expressway to Highway 3 as well as the environmental assessment for County Road 42 from Walker Road to County Road 25 (Puce Road) and a future east-west arterial from Walker Road to County Road 17. This study also includes the preparation and approval of the Sandwich South Secondary Plan.

The traffic analysis has addressed existing operations along Lauzon Parkway/County Road 17 and Division Road/County Road 42 and at the existing Walker Road intersection with Legacy Park Drive/7th Concession Road. Operational impacts identified at key intersections along the study corridors reflect capacity analysis output and detailed micro-simulation.

While this traffic analysis has focused on existing conditions and collision history, subsequent submissions will address future traffic conditions and operational impacts along each of the study area road sections to identify future needs and justification for improvements. Travel demand forecasts will reflect input from the transportation planning analysis being carried out in parallel to the traffic analysis.

All current intersection operating conditions are manageable during the weekday morning and afternoon peak hours. While the traffic analysis confirms that split phase operation on the Forest Glade Drive and South Service Road approaches to Lauzon Parkway can accommodate some future growth while maintaining this form of control, the benefit of modifying lane geometry to facilitate conventional (not split phase) traffic control will be assessed as part of the future conditions analysis. While current operations at the offset County Road 42 intersections with Lauzon Parkway and County Road 17 are manageable, the southbound left-turn turn movement is approaching capacity and consolidation of these intersections through a Lauzon Parkway Extension will reduce this deficiency.

Operating conditions at the County Road 42 intersection with Walker Road are manageable, despite queue lengths of 120 to 210 metres on the Walker Road approaches to this intersection. Sensitivity analysis indicates that modifications to the traffic signal timings are unlikely to provide any improvement with respect to queuing.

Operations at the County Road 42 intersection with County Road 19 (Manning Road) also reflect manageable impacts with critical movement capacity utilization in the range of 80 to 85%. Minor increases to cycle length can increase available capacity without changes to lane geometry to accommodate some amount of short term growth, as required.

Collision analysis for the study area road sections was undertaken to identify any potentially collision prone locations and possible contributing factors. Approximately 70% of all collisions occurring along Lauzon Parkway and County Road 17 occurred at Twin Oaks Drive and County Road 42. Nearly half (45%) of the collisions at the Lauzon Parkway/Twin Oaks Drive intersection were rear-end collisions and the proximity of the intersection to the E.C. Row Expressway west to south ramp, as well as the profile of the east and south intersection approaches may be contributing factors. One half of the collisions at the Lauzon Parkway/County Road 42 intersection were rear-end collisions and the proximity to the County

Road 17 intersection as well as the offset traffic signal control at these locations is likely the largest contributing factors to the higher collision frequency at this location. Consolidation of these intersections through a Lauzon Parkway Extension can be expected to enhance safety and reduce collision frequency.

Collisions at the County Road 42 (Division Road) intersection with Walker Road represent nearly 30% of all collisions that occurred along County Road 42/Division Road between Walker Road and County Road 25. More than half (53%) of the collisions at Walker Road were rear-end collisions. While sight lines and driver workload do not appear to be primary contributing factors, there are a number of entrances within 50 metres of the intersection. The Division Road intersection with Riberdy Road experienced 24 collisions in five years and while no trend can be identified based on the available summary level data, the proximity of the intersection to Walker Road and related queuing impacts may be contributing factors.

The County Road 42/Lauzon Road intersection experienced 19 collisions in five years and nearly 60% of these were rear-end collisions. The adjacent section of County Road 42 between Lauzon Road and County Road 43 (Banwell Road) experienced 24 collisions in five years. Road surface and environmental conditions may be partially responsible for the collision frequency at these locations.

Eight (8) of the 11 collisions experienced along County Road 42 between Lesperance Road and County Road 19 involved vehicles using the gas station entrances immediately west of County Road 19. Eastbound vehicle queuing extending from County Road 19 may be a contributing factor.

The review of summary level collision data for the Walker Road intersection with Legacy Park Drive does not identify any collision trend related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions.

The review of collision data for Highway 401 between Concession Roads 11 and 9 and for Highway 3 between Talbot Road and Sexton Sideroad does not indicate any noticeable trends related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions.

1. INTRODUCTION

The Ministry of Transportation (MTO), the City of Windsor and the County of Essex have initiated a Class Environmental Assessment Study to address the future requirements for Lauzon Parkway. The study has the following main components:

- the environmental assessment and preliminary design for:
  - Lauzon Parkway from E.C. Row Expressway to County Road 42;
  - Lauzon Parkway's extension to Highway 401; and
  - Lauzon Parkway's further extension to Highway 3.
- the environmental assessment for:
  - County Road 42 from Walker Road to County Road 25 (Puce Road); and
  - the Future East-West Arterial from Walker Road to County Road 17.
- the preparation and approval of a Secondary Plan for the remainder of the lands transferred to the City of Windsor in 2003 (lands are generally bounded by the CPR mainline north of the Windsor International Airport, Lauzon Parkway and the 8th Concession Road, and the City of Windsor boundary).

This study will follow the *Ontario Environmental Assessment Act* through the application of the *Municipal Class Environmental Assessment* process (October 2000 as amended in May 2007). The study is also subject to the requirements of the *Canadian Environmental Assessment Act* and will refer to the *Environmental Assessment for Provincial Transportation Facilities* for potential highway improvements.

1.1 Background

As part of the April 2005 Ontario/Canada announcement of the *Let's Get Windsor Essex Moving Strategy*, a commitment was made to conduct an environmental assessment and preliminary design study to examine upgrades and the extension of Lauzon Parkway between the E.C. Row Expressway and Highway 401. In addition, partners have agreed to include planning and design components related to County Road 42, the East-West Arterial and the South Sandwich Secondary Plan Study.

The environmental assessment and preliminary design of improvements to Lauzon Parkway is one of the initiatives to improve the Windsor-Detroit Gateway that was further announced by the Government of Ontario on April 9, 2010.

The *Essex Windsor Region Master Transportation Plan* (EWRMTP) identifies the need for operational and capacity improvements to the existing section of Lauzon Parkway south of E.C. Row Expressway to County Road 42 and the protection of a new corridor further south to Highway 401. A further extension to Highway 3 was also considered in the regional master plan to provide local and regional transportation benefits. The *EWRMTP* identifies a new four lane facility to provide sufficient traffic capacity to 2021.

The Windsor/Detroit border functions as the busiest international trade corridor in North America, handling about 30% of the two-way flow of Canada/U.S. trade by value and about 25% by volume. The Government of Ontario, in partnership with the County of

Essex and the City of Windsor, are working together to implement infrastructure projects that will help to relieve traffic congestion and improve traffic flows.

1.2 Study Approach

The purpose of this study is to identify the transportation problems and opportunities, and develop and evaluate potential solutions. The transportation planning process will:

- Identify factors driving *Area Transportation System* needs;
- Determine *Area Transportation System* needs that address the *Area Transportation System* problems and opportunities in the analysis area; and
- Provide strategies to address *Area Transportation System* problems and opportunities.

The first step in the transportation planning process will be to establish baseline transportation and socio-economic data that define the corresponding baseline for the Environmental Assessment Study. An understanding of the existing and historical transportation and socio-economic conditions as well as future trends provides a basis for establishing the appropriate scope of the remaining technical and consultation requirements of the Study.

This baseline transportation planning analysis is paralleled by the existing conditions traffic analysis and review of collision history to better understand any current operating constraints and potential safety issues throughout the study area.

The existing conditions traffic analysis and review of collision history complement the transportation planning analysis applied to the development of the Problem and Opportunity Statement.

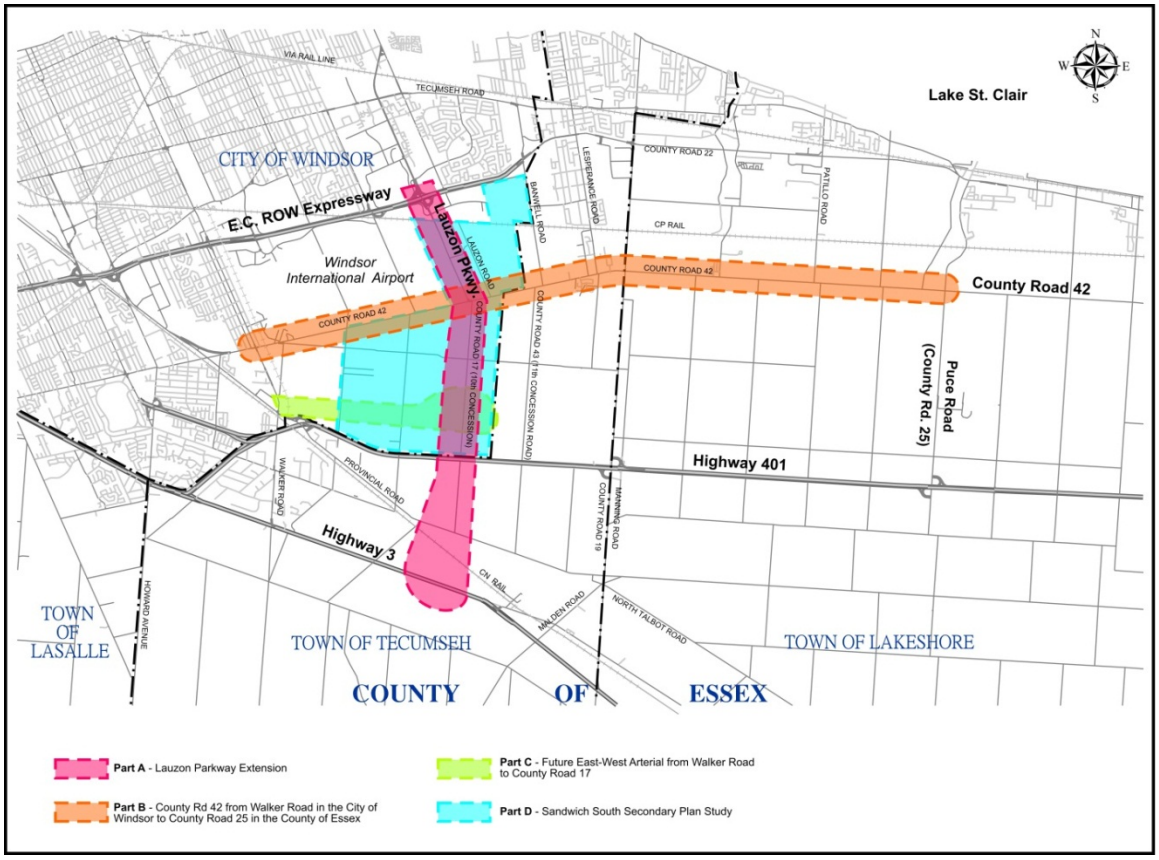
Recent intersection turning movement data collected as part of the traffic analysis is applied in a detailed assessment of weekday morning and afternoon peak hour intersection traffic operations throughout the study area road network. This analysis includes an assessment of capacity utilization, queuing and delay and establishes any level of service deficiencies under existing conditions.

A review of collision history establishes any collision prone intersection or mid-block locations along Lauzon Parkway, Walker Road, Highways 401 and 3 and County Roads 17 and 42 as input to any consideration for operational improvements to address potential safety issues. This review reflects accident data summaries available from the City of Windsor and the Ministry of Transportation and Motor Vehicle Collision Reports provided by the County of Essex.

1.3 Study Area

The study area established for the purpose of the transportation planning and traffic analyses is illustrated in **Figure 1**. While the defined study area extends from E.C. Row Expressway to Highway 3 and from Walker Road to County Road 25, the transportation planning analysis applies the full *Essex-Windsor Regional Transportation Master Plan* (EWRTMP) demand forecasting model to reflect a broader understanding of transportation demand and the effects on the defined study area road network.

Figure 1 Study Area



2. EXISTING CONDITIONS

2.1 Existing Traffic Volumes

Weekday peak period turning movement surveys were conducted at all study area intersections between Tuesday, March 22nd and Thursday, March 31st, 2011. Based on the data collected during these surveys, the weekday morning peak hour begins between 7:15 and 7:30 a.m. and the afternoon peak hour begins between 4:15 and 5:15 p.m..

Peak hour peak direction travel demand along Lauzon Parkway north of E.C. Row Expressway is approximately 1,650 vehicles while the corresponding demand south of the interchange to County Road 42 ranges between 750 and 950 vehicles.

Current peak hour peak direction travel demand along County Road 42 ranges between 450 and 650 vehicles with the exception of the demand between Concession Road 9 and County Road 17. Peak direction demand here ranges between 750 and 850 vehicles during the peak hours.

Walker Road peak direction travel demand during the peak hours ranges between 1,250 and 1,350 vehicles in the vicinity of County Road 42 (Division Road) and Legacy Park Drive.

The current weekday morning and afternoon peak hour traffic volumes are summarized in **Figure 2**.

2.2 Existing Operating Performance

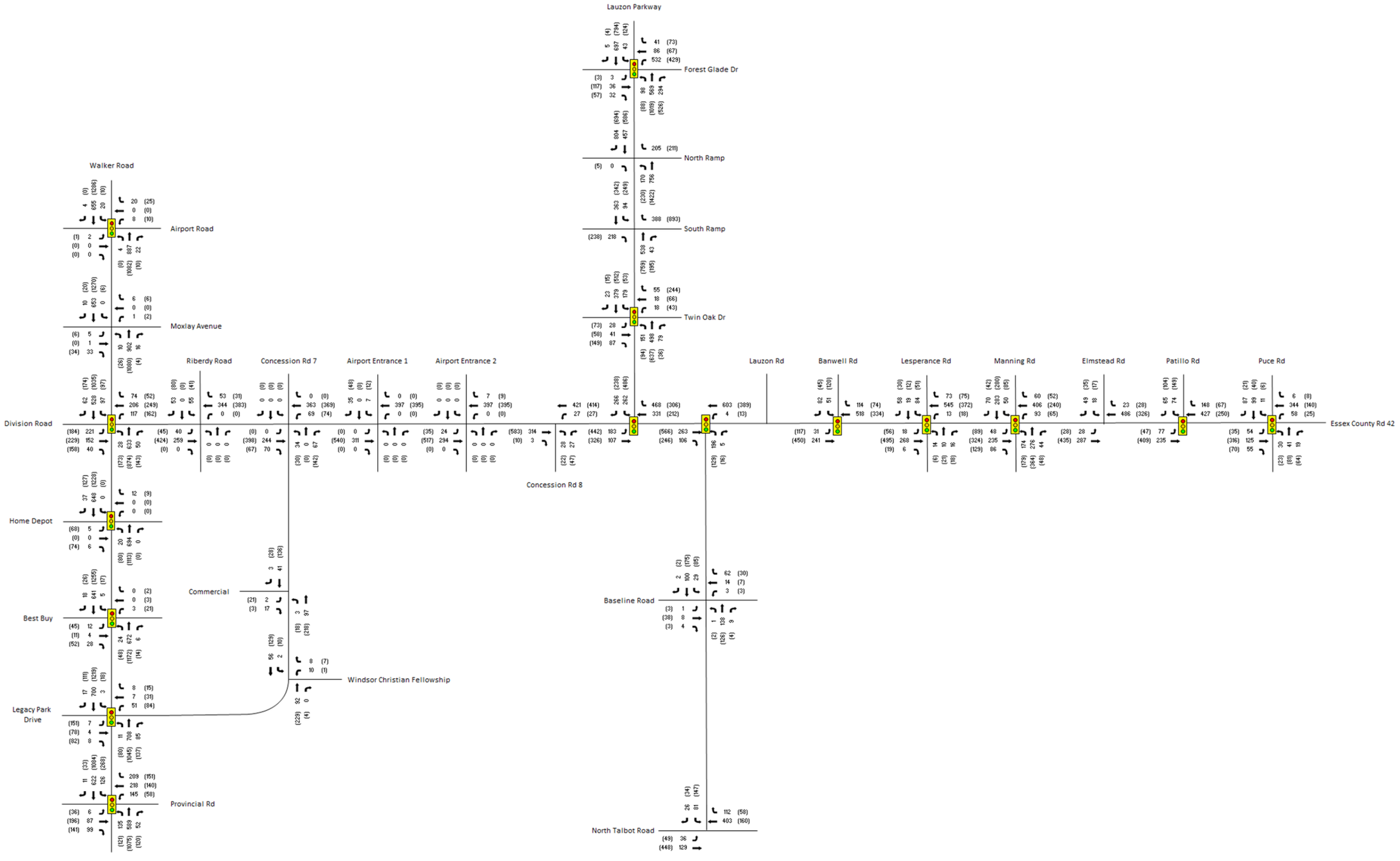
Current operating performance was measured on the basis of capacity utilization, delay (level of service) and queuing. Capacity utilization at all signalized intersections was assessed using *Synchro 7* while the evaluation of delay and queuing impacts at all study area intersections was carried out using micro-simulation models. Micro-simulation of impacts along Walker Road, County Road 42 and County Road 17 was carried out using *SimTraffic*. The more complex configuration of the Lauzon Parkway interchange with E.C. Row Expressway and the proximity of the County Road 42 intersections with Lauzon Parkway and County Road 17 required the application of the VISSIM micro-simulation tool to model the impacts along Lauzon Parkway between Forest Glade Drive and County Road 42.

2.2.1 Lauzon Parkway/County Road 17

Current levels of service along Lauzon Parkway and County Road 17 are summarized in **Table 1**. This summary demonstrates that all movements at intersections along Lauzon Parkway and County Road 17 operate with a level of service (LOS) D or better during each of the weekday peak hours with the exception of a morning peak hour westbound left-turn LOS E at Twin Oaks Drive.

The opposing Forest Glade Drive and E.C. Row Avenue approaches to Lauzon Parkway operate on split phases with a shared westbound left/through lane group (one dedicated left-turn lane plus one shared left-turn/through lane). Given the nature of split phase operation, intersection capacity is reduced to accommodate the shared lane group. The

Figure 2 Existing AM (PM) Peak Hour Traffic Volumes



analysis demonstrates that this westbound lane group operates adequately under existing conditions and that there is reserve intersection capacity to accommodate traffic growth on all approaches.

With the exception of the north to east and south to west ramps, all other ramps at the E.C. Row Expressway interchange with Lauzon Parkway operate under free-flow conditions with levels of service A in all cases. Despite the left-turn conflict, the north to east and south to west ramps maintain a LOS B or better during each of the morning and afternoon peak periods.

Traffic analysis for the signalized Lauzon Parkway intersection with Twin Oaks Drive/South Service Road reflects side road approach volume to capacity ratios of no more than 0.66. Corresponding volume to capacity ratios on the Lauzon Parkway approaches are all less than 0.40. Despite the morning peak hour westbound left-turn LOS E, this movement is not capacity constrained as the demand is less than 20 vehicles.

Table 1 Existing Levels of Service: Lauzon Parkway/County Road 17

Location/Movement	Levels of Service							
	Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
	V/C	Delay	LOS	Queue[1]	V/C	Delay	LOS	Queue[1]
Lauzon Parkway at Forest Glade Drive								
Eastbound Left	0.04	38 s	D	1 m	0.04	42 s	D	0 m
Eastbound Through/Right	0.25	43/15 s	D/B	17 m	0.64	42/24 s	D/C	38 m
Westbound Left/Through	0.87	41/43 s	D/D	69 m	0.83	41/46 s	D/D	58 m
Westbound Right	0.12	9 s	A	69 m	0.21	9 s	A	58 m
Northbound Left	0.31	15 s	B	13 m	0.28	19 s	B	14 m
Northbound Through	0.29	15 s	B	27 m	0.60	21 s	C	50 m
Northbound Right	0.37	4 s	A	0 m	0.60	7 s	A	0 m
Southbound Left	0.12	15 s	B	7 m	0.51	21 s	C	19 m
Southbound Through/Right	0.41	16/11 s	B/B	34 m	0.44	20/19 s	B/B	40 m
Lauzon Parkway at North E.C. Row Ramps								
Eastbound Right	-	0 s	A	0 m	-	0 s	A	0 m
Westbound Right	-	0 s	A	0 m	-	0 s	A	0 m
Northbound Left	-	10 s	B	6 m	-	14 s	B	12 m
Northbound Through	-	1 s	A	0 m	-	1 s	A	0 m
Southbound Through/Right	-	1/1 s	A/A	27 m	-	2/2 s	A/A	35 m
Lauzon Parkway at South E.C. Row Ramps								
Eastbound Right	-	0 s	A	0 m	-	0 s	A	0 m
Westbound Right	-	0 s	A	0 m	-	0 s	A	0 m
Northbound Through/Right	-	0/1 s	A/A	0 m	-	1/1 s	A/A	0 m
Southbound Left	-	4 s	A	5 m	-	14 s	B	32 m
Southbound Through	-	0 s	A	0 m	-	0 s	A	0 m
Lauzon Parkway at Twin Oaks Drive								
Eastbound Left	0.15	50 s	D	12 m	0.39	44 s	D	21 m
Eastbound Through/Right	0.46	41/16 s	D/B	23 m	0.66	44/21 s	D/C	42 m
Westbound Left	0.20	58 s	E	10 m	0.66	38 s	D	13 m
Westbound Through	0.07	36 s	D	6 m	0.25	37 s	D	19 m
Westbound Right	0.25	5 s	A	0 m	0.57	8 s	A	14 m
Northbound Left	0.23	7 s	A	13 m	0.18	8 s	A	7 m
Northbound Through/Right	0.31	7/4 s	A/A	22 m	0.33	7/4 s	A/A	29 m
Southbound Left	0.32	10 s	A	11 m	0.12	10 s	B	6 m
Southbound Through/Right	0.22	5/3 s	A/A	14 m	0.28	8/4 s	A/A	24 m
Lauzon Parkway at County Road 42								
Eastbound Left	0.31	8 s	A	16 m	0.74	16 s	B	53 m
Eastbound Through	0.11	5 s	A	9 m	0.36	13 s	B	39 m
Westbound Through	0.37	7 s	A	29 m	0.37	14 s	B	30 m
Westbound Right	0.49	0 s	A	0 m	0.44	0 s	A	0 m
Southbound Left	0.78	41 s	D	63 m	0.91	36 s	D	123 m
Southbound Right	0.50	8 s	A	17 m	0.36	8 s	A	14 m

Note: 1. Queue length reflects 95th percentile conditions

Table 1 Existing Levels of Service: Lauzon Parkway/County Road 17 (Continued)

Location/Movement	Levels of Service							
	Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
	V/C	Delay	LOS	Queue[1]	V/C	Delay	LOS	Queue[1]
County Road 17 at County Road 42								
Eastbound Through/Right	0.18	1/1 s	A/A	6 m	0.36	4/2 s	A/A	21 m
Westbound Left/Through	0.29	6/6 s	A/A	21 m	0.19	11/5 s	B/A	13 m
Northbound Left/Right	0.73	48/34 s	D/C	51 m	0.66	47/30 s	D/C	39 m
County Road 17 at Baseline Road								
Eastbound Left/Through/Right	-	0/8/2 s	A/A/A	9 m	-	5/9/2 s	A/A/A	13 m
Westbound Left/Through/Right	-	4/9/2 s	A/A/A	14 m	-	5/9/2 s	A/A/A	12 m
Northbound Left/Through/Right	-	4/9/9 s	A/A/A	2 m	-	7/7/5 s	A/A/A	2 m
Southbound Left/Through/Right	-	4/3/2 s	A/A/A	6 m	-	5/4/2 s	A/A/A	13 m
County Road 17 at North Talbot Road								
Eastbound Left/Through	-	6/1 s	A/A	16 m	-	4/3 s	A/A	15 m
Westbound Through/Right	-	3/2 s	A/A	1 m	-	1/1 s	A/A	1 m
Southbound Left/Right	-	24/17 s	C/C	30 m	-	32/26 s	D/D	42 m

Note: 1. Queue length reflects 95th percentile conditions

While the offset signalized County Road 42 intersections with Lauzon Parkway and County Road 17 operate adequately, the southbound left-turn from Lauzon Parkway approaches capacity during the afternoon peak hour and the 95th percentile queue length extends approximately 125 metres. All other movements at these intersections operate with volume to capacity ratios below 0.80 during each of the peak hours. Based on the afternoon peak hour turning movement proportions at these intersections, it is reasonable to expect that 30% the southbound left-turn volume from Lauzon Parkway is destined southbound on County Road 17. Similarly, approximately 60% of the afternoon peak hour northbound left-turning traffic from County Road 17 is likely destined northbound on Lauzon Parkway. Sensitivity analysis based on these travel pattern assumptions indicates that volume to capacity ratios for all movements could be maintained at or below 0.75 if these intersections were consolidated through a Lauzon Parkway Extension.

Operating conditions at each of the stop-controlled County Road 17 intersections with Baseline Road and North Talbot Road reflect adequate levels of service during each of the weekday peak hours.

2.2.2 County Road 42

Current weekday morning and afternoon peak hour operating conditions at intersections along County Road 42 are summarized below in **Table 2**. All movements at intersections along County Road 42 operate with a LOS D or better during each of the weekday morning and afternoon peak hours.

Peak hour operations at the County Road 42 intersection with Walker Road currently reflect volume to capacity ratios no greater than 0.80 and queue lengths of approximately 210 and 120 metres on the north and south approaches, respectively. Similar operations at the County Road 42 intersection with County Road 19 reflect peak hour volume to capacity ratios less than 0.85. The simulation analysis identifies a westbound morning peak hour 95th percentile queue length of approximately 140 metres and afternoon peak hour queue lengths of 140 to 170 metres on the County Road 19 approaches. Levels of service are adequate, despite the current queuing impacts.

Current operating conditions at County Road 43, Lesperance Road, Patillo Road and County Road 25 reflect less than 65% capacity utilization for individual movements.

Table 2 Existing Levels of Service: County Road 42

Location/Movement	Levels of Service							
	Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
	V/C	Delay	LOS	Queue[1]	V/C	Delay	LOS	Queue[1]
Walker Road at County Road 42								
Eastbound Left	0.80	46 s	D	70 m	0.67	49 s	D	64 m
Eastbound Through/Right	0.41	38/4 s	D/A	47 m	0.70	41/14 s	D/B	70 m
Westbound Left	0.39	30 s	C	40 m	0.66	50 s	D	56 m
Westbound Through/Right	0.62	35/22 s	D/C	43 m	0.65	36/26 s	D/C	43 m
Northbound Left	0.07	14 s	B	17 m	0.71	44 s	D	58 m
Northbound Through/Right	0.45	13/12 s	B/B	66 m	0.66	25/23 s	C/C	116 m
Southbound Left	0.25	17 s	B	29 m	0.34	40 s	D	61 m
Southbound Through/Right	0.36	12/9 s	B/A	58 m	0.80	46/47 s	D/D	203 m
County Road 42 at Riberdy Road								
Eastbound Left/Through	-	6/3 s	A/A	27 m	-	5/3 s	A/A	30 m
Westbound Through/Right	-	1/0 s	A/A	2 m	-	1/0 s	A/A	6 m
Southbound Left/Right	-	12/5 s	B/A	23 m	-	13/6 s	B/A	22 m
County Road 42 at Concession Road 7								
Eastbound Through	-	1 s	A	0 m	-	1 s	A	0 m
Westbound Left/Through	-	3/2 s	A/A	17 m	-	4/2 s	A/A	28 m
Northbound Left/Right	-	9/4 s	A/A	22 m	-	14/7 s	B/A	25 m
County Road 42 at Airport Entrance/Exit								
Eastbound Left	-	3 s	A	9 m	-	3 s	A	10 m
Westbound Right	-	3 s	A	1 m	-	3 s	A	0 m
Southbound Left	-	8 s	A	7 m	-	10 s	A	10 m
Southbound Right	-	4 s	A	16 m	-	4 s	A	16 m
County Road 42 at Concession Road 8								
Eastbound Through/Right	-	2/0.5 s	A/A	1 m	-	3/2 s	A/A	1 m
Westbound Left/Through	-	10/7 s	B/A	15 m	-	13/10 s	B/B	24 m
Northbound Left/Right	-	9/4 s	A/A	16 m	-	12/7 s	B/A	16 m
County Road 42 at Lauzon Parkway								
Eastbound Left	0.31	8 s	A	16 m	0.74	16 s	B	53 m
Eastbound Through	0.11	5 s	A	9 m	0.36	13 s	B	39 m
Westbound Through	0.37	7 s	A	29 m	0.37	14 s	B	30 m
Westbound Right	0.49	0 s	A	0 m	0.44	0 s	A	0 m
Southbound Left	0.78	41 s	D	63 m	0.91	36 s	D	123 m
Southbound Right	0.50	8 s	A	17 m	0.36	8 s	A	14 m
County Road 42 at Essex County Road 17								
Eastbound Through/Right	0.18	1/1 s	A/A	6 m	0.36	4/2 s	A/A	21 m
Westbound Left/Through	0.29	6/6 s	A/A	21 m	0.19	11/5 s	B/A	13 m
Northbound Left/Right	0.73	48/34 s	D/C	51 m	0.66	47/30 s	D/C	39 m
County Road 42 at County Road 43								
Eastbound Left	0.08	20 s	C	18 m	0.22	17 s	B	27 m
Eastbound Through	0.22	9 s	A	39 m	0.46	10 s	A	64 m
Westbound Through/Right	0.56	15/13 s	B/B	85 m	0.41	13/10 s	B/B	60 m
Southbound Left/Right	0.42	42/19 s	D/B	40 m	0.51	36/21 s	D/C	48 m
County Road 42 at Lesperance Road								
Eastbound Left	0.04	21 s	C	10 m	0.09	18 s	B	21 m
Eastbound Through/Right	0.26	12/11 s	B/B	54 m	0.47	13/9 s	B/A	64 m
Westbound Left	0.02	10 s	A	8 m	0.03	12 s	B	10 m
Westbound Through	0.48	8 s	A	70 m	0.32	6 s	A	44 m
Westbound Right	0.08	4 s	A	21 m	0.07	3 s	A	16 m
Northbound Left	0.07	33 s	C	10 m	0.03	37 s	D	6 m
Northbound Through/Right	0.10	34/6 s	C/A	12 m	0.15	35/9 s	D/A	13 m
Southbound Left	0.38	36 s	D	30 m	0.25	37 s	D	22 m
Southbound Through/Right	0.25	34/10 s	C/A	20 m	0.16	34/6 s	C/A	15 m

Note: 1. Queue length reflects 95th percentile conditions

Table 2 Existing Levels of Service: County Road 42 (Continued)

Location/Movement	Levels of Service							
	Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
	V/C	Delay	LOS	Queue[1]	V/C	Delay	LOS	Queue[1]
County Road 42 at County Road 19								
Eastbound Left	0.15	26 s	C	30 m	0.18	26 s	C	51 m
Eastbound Through/Right	0.56	21/17 s	C/B	84 m	0.78	27/25 s	C/C	133 m
Westbound Left	0.22	31 s	C	57 m	0.20	29 s	C	28 m
Westbound Through/Right	0.75	33/31 s	C/C	133 m	0.47	27/23 s	C/C	76 m
Northbound Left	0.62	43 s	D	70 m	0.59	39 s	D	83 m
Northbound Through/Right	0.68	32/24 s	C/C	89 m	0.83	51/43 s	D/D	166 m
Southbound Left	0.18	27 s	C	40 m	0.34	29 s	C	37 m
Southbound Through/Right	0.84	51/42 s	D/D	125 m	0.72	39/30 s	D/C	88 m
County Road 42 at Elmstead Road								
Eastbound Left/Through	-	8/5 s	A/A	23 m	-	9/6 s	A/A	22 m
Westbound Through/Right	-	13/12 s	B/B	0 m	-	10/10 s	B/A	0 m
Southbound Left/Right	-	11/6 s	B/A	20 m	-	10/4 s	A/A	20 m
County Road 42 at Patillo Road								
Eastbound Left	0.18	24 s	C	24 m	0.08	26 s	C	23 m
Eastbound Through	0.23	18 s	B	51 m	0.46	24 s	C	80 m
Westbound Through/Right	0.63	20/17 s	B/B	92 m	0.39	14/10 s	B/A	51 m
Southbound Left/Right	0.49	25/13 s	C/B	42 m	0.73	28/18 s	C/B	69 m
County Road 42 at County Road 25								
Eastbound Left/Through/Right	0.39	17/11/9 s	B/B/A	48 m	0.56	17/15/12 s	B/B/B	68 m
Westbound Left/Through/Right	0.49	13/13/8 s	B/B/A	56 m	0.22	14/9/3 s	B/A/A	30 m
Northbound Left/Through/Right	0.26	31/28/10 s	C/C/A	33 m	0.40	32/32/14 s	C/C/B	46 m
Southbound Left/Through/Right	0.46	34/30/15 s	C/C/B	46 m	0.16	29/26/6 s	C/C/A	22 m

Note: 1. Queue length reflects 95th percentile conditions

2.2.3 Walker Road

The summary presented in **Table 3** demonstrates that the current operating conditions at the Walker Road intersection with Legacy Park Drive reflect individual movement volume to capacity ratios no greater than 0.67 and levels of service D or better. The simulation analysis confirms a manageable 95th percentile northbound queue length of 140 metres during the afternoon peak hour.

Table 3 Existing Intersection Levels of Service: Walker Road

Location/Movement	Levels of Service							
	Weekday A.M. Peak Hour				Weekday P.M. Peak Hour			
	V/C	Delay	LOS	Queue[1]	V/C	Delay	LOS	Queue[1]
Walker Road at Legacy Park Drive								
Eastbound Left	0.04	43 s	D	11 m	0.67	48 s	D	41 m
Eastbound Through/Right	0.07	37/6 s	D/A	16 m	0.49	40/24 s	D/C	78 m
Westbound Left	0.26	46 s	D	23 m	0.53	43 s	D	26 m
Westbound Through/Right	0.06	21/5 s	C/A	16 m	0.15	37/13 s	D/B	33 m
Northbound Left	0.03	11 s	B	11 m	0.33	25 s	C	38 m
Northbound Through/Right	0.34	7/6 s	A/A	59 m	0.52	18/19 s	B/B	140 m
Southbound Left	0.01	10 s	A	4 m	0.08	31 s	C	16 m
Southbound Through/Right	0.30	4/3 s	A/A	36 m	0.66	14/13 s	B/B	89 m

Note: 1. Queue length reflects 95th percentile conditions

3. COLLISION HISTORY

A review of recent collision history was carried out using summary level collision data available from the City of Windsor and MTO and Motor Vehicle Collision reports available from the County of Essex. The intent of this preliminary investigation was to establish any potentially collision prone locations and the possible contributing factors to collisions at these sites. This investigation includes only a review of the available collision data and does not constitute a safety audit or an in-service safety review.

The collision summaries identify the total number of collisions, the estimated collision rate and characteristics related to impact type, severity and lighting, road surface and environmental conditions. The estimated collision rate reflects the best estimate of average annual daily traffic volume based on available turning movement data and mid-block traffic volumes.

3.1 Lauzon Parkway and County Road 17

The five year collision history for Lauzon Parkway and County Road 17 within the City limits (north of Highway 401) reflects conditions between October 2005 and September 2010. The collision history for County Road 17 south of Highway 401 reflects conditions between January 2003 and December 2007. The collision frequency, collision rate and collision characteristics along Lauzon Parkway and County Road 17 are summarized in **Tables 4 and 5**.

The collision summary confirms that 70% of all collisions that occurred between E.C. Row Expressway and County Road 46 during the respective five year periods represented by the data for these road sections occurred at either the Twin Oaks Drive or County Road 42 intersections. This history is reflected in the estimated collision rates of 1.28 and 1.81 collisions per million vehicles entering for the Twin Oaks Drive and County Road 42 intersections, respectively.

Collision history at Twin Oaks Drive does not indicate that lighting conditions are a contributing factor as nearly 80% of all collisions occurred in daylight and there is existing illumination through the interchange to Twin Oaks Drive. Similarly, the road surface conditions were described as dry and the environmental conditions were described as clear for more than 80% of the collisions at this intersection. Accordingly, the data do not imply that road surface and environmental conditions have contributed to the higher frequency of collisions at this site. There were no fatalities during the periods represented by the data and approximately 80% of the collisions resulted in property damage only.

The only potentially unusual collision characteristic at the Lauzon Parkway intersection with Twin Oaks Drive is the higher than expected proportion of rear end collisions. Nearly half (45%) of the incidents (21 collisions over five years) involved rear-end collisions and nearly half of these (9 incidents) were in the southbound direction. Six (6) and four (4) of the remaining rear-end collisions occurred on the south and east approaches, respectively.

There are some geometric design characteristics on the intersection approaches that may be contributing to the frequency of rear end collisions. The west to south ramp from E.C.

Row Expressway merges with Lauzon Parkway only 150 metres north of Twin Oaks Drive. This proximity and the potential for short distance lane changes to access Twin Oaks Drive may be a contributing factor to some of the 9 southbound rear end collisions on this approach. Further review of the existing conditions at the E.C. Row Interchange (including roadway geometrics, intersection spacing, traffic operations, and roadway safety) is included in the *Lauzon Parkway/E.C. Row Expressway Interchange Existing and Future Conditions Report.*.

Table 4 Lauzon Parkway/County Road 17 Intersection Collision History

Lauzon Parkway/ County Road 17	Total Collisions	Collision Rate[1]	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
Lauzon Parkway at EC Row WB On-ramp	4	0.10	4 100%	0 0%	0 0%	1 25%	1 25%	0 0%	0 0%	1 25%	1 25%	0 0%	1 25%	3 75%	0 0%	4 100%	0 0%	0 0%	0 0%	0 0%	4 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Lauzon Parkway at EC Row WB	1	0.03	1 100%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%
Lauzon Parkway at EC Row EB On-ramp	7	0.26	5 72%	1 14%	1 14%	3 43%	0 0%	1 14%	2 29%	0 0%	1 14%	0 0%	6 86%	1 14%	0 0%	6 86%	0 0%	0 0%	0 0%	1 14%	5 72%	1 14%	1 14%	0 0%	0 0%	0 0%	0 0%
Lauzon Parkway at Twin Oaks Drive	47	1.28	37 79%	8 17%	2 4%	21 45%	10 21%	2 4%	5 11%	5 11%	3 6%	1 2%	37 79%	10 21%	0 0%	38 81%	9 19%	0 0%	0 0%	0 0%	39 83%	6 13%	2 4%	0 0%	0 0%	0 0%	0 0%
Lauzon Parkway at Service Road B	4	0.15	3 75%	1 25%	0 0%	1 25%	1 25%	0 0%	1 25%	0 0%	1 25%	0 0%	3 75%	1 25%	0 0%	3 75%	1 25%	0 0%	0 0%	0 0%	2 50%	1 25%	0 0%	0 0%	0 0%	0 0%	1 25%
Lauzon Parkway at County Road 42	73	1.81	55 75%	16 22%	2 3%	36 50%	4 5%	2 3%	6 8%	9 12%	15 21%	1 1%	60 82%	13 18%	0 0%	54 74%	16 22%	1 2%	1 1%	1 1%	53 73%	16 22%	0 0%	2 3%	0 0%	1 1%	1 1%
County Road17 at County Road 42	8	0.30	7 88%	1 12%	0 0%	2 25%	1 12%	0 0%	0 0%	5 63%	0 0%	0 0%	8 100%	0 0%	0 0%	4 50%	2 25%	2 25%	0 0%	0 0%	5 63%	0 0%	1 13%	1 12%	1 12%	0 0%	0 0%
County Road 17 at Base Line Road	6	0.74	5 83%	1 17%	0 0%	2 33%	2 33%	1 17%	1 17%	0 0%	0 0%	0 0%	4 67%	2 33%	0 0%	4 67%	0 0%	2 33%	0 0%	0 0%	5 83%	0 0%	1 17%	0 0%	0 0%	0 0%	0 0%
County Road 17 at County Road 46	1	0.02	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Total	151	-	117 77%	28 19%	6 4%	66 44%	20 13%	6 4%	16 11%	20 13%	21 14%	2 1%	121 80%	30 20%	0 0%	113 75%	29 19%	5 3%	1 1%	3 2%	114 75%	25 17%	5 3%	3 2%	1 1%	1 1%	2 1%

Note: 1. Collisions/million vehicles entering

Table 5 Lauzon Parkway/County Road 17 Midblock Collision History

Lauzon Parkway/ County Road 17	Total Collisions	Collision Rate[1]	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
Service Road B to County Road 42	9	0.29	6 67%	2 22%	1 11%	5 56%	2 22%	0 0%	0 0%	0 0%	1 11%	1 11%	7 78%	2 22%	0 0%	6 67%	2 22%	1 11%	0 0%	0 0%	7 78%	1 11%	1 11%	0 0%	0 0%	0 0%	0 0%
County Road 42 to Baseline Road	4	0.45	3 75%	1 25%	0 0%	1 25%	1 25%	1 25%	1 25%	0 0%	0 0%	0 0%	4 100%	0 0%	0 0%	1 25%	1 25%	1 25%	1 25%	0 0%	1 25%	2 50%	1 25%	0 0%	0 0%	0 0%	0 0%
Baseline Road to Highway 401	3	0.25	3 100%	0 0%	0 0%	1 33%	0 0%	0 0%	0 0%	0 0%	1 33%	1 33%	1 33%	1 33%	1 33%	2 67%	0 0%	1 33%	0 0%	0 0%	2 67%	0 0%	0 0%	1 33%	0 0%	0 0%	0 0%
Highway 401 to County Road 46	4	0.10	2 50%	2 50%	0 0%	1 25%	0 0%	3 75%	0 0%	0 0%	0 0%	0 0%	3 75%	1 25%	0 0%	0 0%	0 0%	3 75%	1 25%	0 0%	0 0%	1 25%	1 25%	2 50%	0 0%	0 0%	0 0%
Total	20	-	14 70%	5 25%	1 5%	8 40%	3 15%	4 20%	1 5%	0 0%	2 10%	2 10%	15 75%	4 20%	1 5%	9 45%	3 15%	6 30%	2 10%	0 0%	10 50%	4 20%	3 15%	3 15%	0 0%	0 0%	0 0%

Note: 1. Collisions per million vehicle-kilometres for road sections

Collision history at the Lauzon Parkway intersection with County Road 42 also confirms that lighting, road surface and environmental conditions do not appear to be contributing to the higher frequency of collisions at this location. Lighting conditions are described as daylight, road surface conditions are described as dry and environmental conditions are described as clear in approximately 75% of all cases. However, as is the case at the Twin Oaks Drive intersection, approximately half of the 73 collisions at the County Road 42 intersection were rear-end collisions. Based on this unusually high proportion of rear-end collisions and the fact that more than 80% of these collisions involved either southbound or eastbound vehicles, it is reasonable to expect that the proximity of the Lauzon Parkway and County Road 17 intersections, together with the offset signalized traffic control, may be a contributing factor. Southbound left-turn demand has historically been very high (500 to 800 vehicles) and driver aggression may lead to collisions of this nature. The consolidation of the Lauzon Parkway and County Road 17 intersections with County Road 42 is expected to improve these conditions while also providing the operational level of service benefits described in **Section 2.2**.

The collision history for all remaining intersections along Lauzon Parkway and County Road 17 reflects frequencies of no more than 8 collisions in five years and rates of no more than 0.30 collisions per million vehicles entering with one exception. Collision history at the Baseline Road intersection reflects a rate of 0.74 collisions per million vehicles entering, but a total of only six (6) collisions have occurred at this site over the five years represented by the data. The collision history for all remaining mid-block road sections reflects frequencies of no more than 9 collisions and rates of no more than 0.45 collisions per million vehicle kilometres.

3.2 County Road 42

The five year collision history for County Road 42/Division Road reflects conditions within the City limits to just east of Lauzon Road between October 2005 and September 2010. The collision history for County Road 42 east of Lauzon Road reflects conditions between January 2003 and December 2007. The collision frequency, collision rate and collision characteristics along County Road 42 are summarized in **Tables 6 and 7**.

The collision summary indicates that nearly 30% of all collisions that occurred between Walker Road and County Road 25 during the respective five year periods represented by the data for these road sections, occurred at Walker Road. The corresponding estimated intersection collision rate is 1.26 collisions per million vehicles entering. Collision history confirms that lighting, road surface and environmental conditions do not appear to be contributing to the higher frequency of collisions at this location. Lighting conditions are described as daylight, road surface conditions are described as dry and environmental conditions are described as clear in more than 80% of all cases. However, more than half of the 92 collisions at this intersection were rear-end collisions. While this is an unusually high proportion for any one impact type, these collisions were not concentrated on any one approach. While sight lines and driver workload do not appear to be primary contributing factors, there are a number of entrances within 50 metres of the intersection and vehicle manoeuvres at these entrances could be a contributing factor.

Table 6 County Road 42/Division Road Intersection Collision History

County Road 42	Total Collisions	Collision Rate	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
County Road 42 at Walker Road	92	1.26	75 82%	15 16%	2 2%	49 53%	11 12%	0 0%	4 4%	9 10%	18 20%	1 1%	79 86%	12 13%	1 1%	77 84%	9 10%	4 4%	2 2%	0 0%	76 82%	7 8%	7 8%	0 0%	1 1%	0 0%	1 1%
County Road 42 at Riberdy Road	24	1.17	22 92%	1 4%	1 4%	1 4%	8 33%	0 0%	3 13%	8 33%	4 17%	0 0%	18 75%	6 25%	0 0%	21 87%	3 13%	0 0%	0 0%	0 0%	22 92%	1 4%	1 4%	0 0%	0 0%	0 0%	0 0%
County Road 42 at Concession Road 7	6	0.27	3 50%	3 50%	0 0%	3 50%	2 33%	0 0%	0 0%	1 17%	0 0%	0 0%	5 83%	1 17%	0 0%	5 83%	0 0%	1 17%	0 0%	0 0%	5 83%	1 17%	0 0%	0 0%	0 0%	0 0%	0 0%
County Road 42 at Concession Road 8	7	0.30	6 86%	1 14%	0 0%	5 72%	0 0%	1 14%	0 0%	1 14%	0 0%	0 0%	4 57%	3 43%	0 0%	6 86%	1 14%	0 0%	0 0%	0 0%	7 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
County Road 42 at Concession Road 9	14	0.61	7 50%	6 43%	1 7%	6 43%	1 7%	1 7%	0 0%	2 14%	3 22%	1 7%	11 79%	3 21%	0 0%	10 72%	2 14%	0 0%	1 7%	1 7%	10 72%	0 0%	1 7%	0 0%	1 7%	1 7%	1 7%
County Road 42 at Lauzon Road	19	0.96	15 79%	3 16%	1 5%	11 58%	3 16%	0 0%	1 5%	0 0%	3 16%	1 5%	16 84%	3 16%	0 0%	12 63%	6 32%	0 0%	1 5%	0 0%	11 58%	5 26%	3 16%	0 0%	0 0%	0 0%	0 0%
County Road 42 at County Road 43	3	0.12	2 67%	0 0%	1 33%	3 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 100%	0 0%	0 0%	1 33%	2 67%	0 0%	0 0%	0 0%	3 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
County Road 42 at Lesperance Road	9	0.36	7 78%	2 22%	0 0%	5 56%	1 11%	1 11%	0 0%	2 22%	0 0%	0 0%	6 67%	3 33%	0 0%	8 89%	1 11%	0 0%	0 0%	0 0%	8 89%	1 11%	0 0%	0 0%	0 0%	0 0%	0 0%
County Road 42 at County Road 19	12	0.29	9 75%	2 17%	1 8%	4 34%	1 8%	0 0%	1 8%	5 42%	1 8%	0 0%	10 83%	2 17%	0 0%	8 67%	2 17%	1 8%	0 0%	1 8%	8 67%	2 17%	1 8%	0 0%	0 0%	0 0%	1 8%
County Road 42 at County Road 21	6	0.32	6 100%	0 0%	0 0%	0 0%	0 0%	1 17%	1 17%	3 50%	1 16%	0 0%	5 83%	1 17%	0 0%	3 50%	3 50%	0 0%	0 0%	0 0%	5 83%	1 17%	0 0%	0 0%	0 0%	0 0%	0 0%
County Road 42 at Patillo Road	8	0.37	7 88%	1 12%	0 0%	1 12%	0 0%	2 25%	2 25%	3 38%	0 0%	0 0%	8 100%	0 0%	0 0%	5 63%	3 37%	0 0%	0 0%	0 0%	6 75%	1 12%	0 0%	0 0%	0 0%	1 13%	0 0%
County Road 42 at County Road 25	11	0.58	9 82%	2 18%	0 0%	1 9%	6 55%	1 9%	1 9%	1 9%	0 0%	1 9%	7 64%	4 36%	0 0%	10 91%	1 9%	0 0%	0 0%	0 0%	10 91%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%
Total	211	-	168 80%	36 17%	7 3%	89 42%	33 16%	7 3%	13 6%	35 17%	30 14%	4 2%	172 82%	38 18%	1 0%	166 79%	33 15%	6 3%	4 2%	2 1%	171 81%	20 10%	13 6%	0 0%	2 1%	2 1%	3 1%

Note: 1. Collisions/million vehicles entering for intersections and collisions per million vehicle-kilometres for road sections

A total of 24 collisions occurred at the County Road 42 (Division Road) intersection with Riberdy Road over five years (1.17 collisions per million vehicles entering). While no trend can be identified based on the available summary level data, this intersection lies within 60 metres of Walker Road and queued vehicles between these intersections could impact sight lines and/or block through traffic and therefore, this proximity may be a contributing factor to the collision history.

A total of 19 collisions occurred at the County Road 42 intersection with Lauzon Road over five years (0.96 collisions per million vehicles entering). Nearly 60% (11) of these were rear-end collisions and were split between the major and minor street approaches. A total of 24 collisions occurred within the adjacent section of County Road 42 between Lauzon Road and County Road 43 over five years, reflecting a rate of 0.97 collisions per million vehicle kilometres. Road surface and environmental conditions are less than ideal i.e. not dry and clear, in approximately 40% of all cases at these locations and, therefore, may be partially responsible for the collision frequency.

While the collision rate for County Road 42 between Lesperance Road and County Road 19 is only 0.84 collisions per million vehicle-kilometres, 8 of the 11 collisions experienced over five years involved vehicles using the gas station entrances immediately

west of County Road 19. This may be due to impacts related to eastbound vehicle queuing extending from County Road 19 to beyond these entrances.

Table 7 County Road 42/Division Road Midblock Collision History

County Road 42	Total Collisions	Collision Rate	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
Walker Road to Riberdy Road	1	0.61	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	1 100%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Riberdy Road to Baseline Road	2	0.26	2 100%	0 0%	0 0%	1 50%	0 0%	1 50%	0 0%	0 0%	0 0%	0 0%	1 50%	1 50%	0 0%	1 50%	0 0%	0 0%	1 50%	0 0%	1 50%	0 0%	0 0%	0 0%	0 0%	0 0%	1 50%
Concession Road 7 to Concession Road 8	10	0.35	6 60%	4 40%	0 0%	2 20%	2 20%	0 0%	1 10%	3 30%	1 10%	1 10%	7 70%	3 30%	0 0%	7 70%	1 10%	2 20%	0 0%	0 0%	7 70%	1 10%	1 10%	1 10%	0 0%	0 0%	0 0%
Concession Road 8 to Concession Road 9	16	0.52	8 50%	7 44%	1 6%	5 31%	0 0%	0 0%	2 13%	3 18%	4 25%	2 13%	8 50%	7 44%	1 6%	12 75%	2 13%	0 0%	1 6%	1 6%	13 82%	1 6%	1 6%	0 0%	0 0%	1 6%	0 0%
Concession Road 9 to Lauzon Parkway	4	0.13	3 75%	1 25%	0 0%	1 25%	1 25%	0 0%	0 0%	1 25%	1 25%	0 0%	3 75%	1 25%	0 0%	2 50%	1 25%	0 0%	1 25%	0 0%	2 50%	0 0%	1 25%	0 0%	0 0%	0 0%	1 25%
County Road 17 to Lauzon Road	4	0.47	2 50%	1 25%	1 25%	3 75%	0 0%	0 0%	1 25%	0 0%	0 0%	0 0%	4 100%	0 0%	0 0%	2 50%	0 0%	0 0%	1 25%	1 25%	3 75%	0 0%	1 25%	0 0%	0 0%	0 0%	0 0%
Lauzon Road to County Road 43	24	0.97	22 92%	2 8%	0 0%	10 42%	4 17%	2 8%	2 8%	1 4%	3 13%	2 8%	19 79%	5 21%	0 0%	14 58%	3 13%	3 13%	3 12%	1 4%	14 58%	1 4%	3 13%	3 13%	2 8%	0 0%	1 4%
County Road 43 to Lesperance Road	13	0.49	13 100%	0 0%	0 0%	8 62%	3 23%	0 0%	0 0%	2 15%	0 0%	0 0%	10 77%	3 23%	0 0%	10 77%	3 23%	0 0%	0 0%	0 0%	11 85%	2 15%	0 0%	0 0%	0 0%	0 0%	0 0%
Lesperance Road to County Road 19	11	0.84	9 82%	1 9%	1 9%	1 9%	1 9%	0 0%	3 27%	5 46%	1 9%	0 0%	10 91%	1 9%	0 0%	8 73%	3 27%	0 0%	0 0%	0 0%	8 73%	2 18%	0 0%	0 0%	0 0%	1 9%	0 0%
County Road 19 to County Road 21	7	0.18	4 57%	1 14%	2 29%	3 43%	0 0%	3 43%	0 0%	1 14%	0 0%	0 0%	7 100%	0 0%	0 0%	2 29%	3 43%	1 14%	1 14%	0 0%	3 43%	1 14%	2 29%	0 0%	0 0%	0 0%	1 14%
County Road 21 to Patillo Road	11	0.30	6 55%	4 36%	1 9%	1 9%	1 9%	4 36%	1 9%	0 0%	4 37%	0 0%	7 64%	4 36%	0 0%	7 64%	0 0%	1 9%	3 27%	0 0%	7 64%	1 9%	2 18%	0 0%	0 0%	0 0%	1 9%
Patillo Road to County Road 25	5	0.13	4 80%	0 0%	1 20%	0 0%	0 0%	3 60%	0 0%	0 0%	2 40%	0 0%	4 80%	1 20%	0 0%	2 40%	0 0%	2 40%	1 20%	0 0%	2 40%	0 0%	2 40%	1 20%	0 0%	0 0%	0 0%
Total	108	-	80 74%	21 19%	7 7%	35 32%	12 11%	13 12%	11 10%	16 15%	16 15%	5 5%	80 74%	26 24%	2 2%	68 63%	16 15%	9 8%	12 11%	3 3%	72 66%	9 8%	13 12%	5 5%	2 2%	2 2%	5 5%

Note: 1. Collisions/million vehicles entering for intersections and collisions per million vehicle-kilometres for road sections

The collision history for all remaining intersections along County Road 42 reflects frequencies of no more than 14 collisions in five years and rates of no more than 0.61 collisions per million vehicles entering. The collision history for all remaining mid-block road sections reflects frequencies of no more than 16 collisions and rates of no more than 0.61 collisions per million vehicle kilometres.

3.3 Walker Road

The five year collision history for the Walker Road intersection with Legacy Park Drive reflects conditions between October 2005 and September 2010. The collision frequency, collision rate and collision characteristics are summarized in **Table 8**.

The review of summary level collision data for the Walker Road intersection with Legacy Park Drive does not identify any unusual collision history related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions.

Table 8 Walker Road Vehicle Collision History

Walker Road	Total Collisions	Collision Rate	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
Legacy Park Drive	46	0.88	42 91%	4 9%	0 0%	17 37%	16 35%	0 0%	4 9%	2 4%	7 15%	0 0%	35 76%	11 24%	0 0%	37 80%	4 9%	1 2%	1 2%	3 7%	40 87%	3 7%	2 4%	1 2%	0 0%	0 0%	0 0%

3.4 Highway 401 and Highway 3

The five year collision histories for Highway 401 between 11th Concession Road and 9th Concession Road and Highway 3 between Talbot Road and Sexton Sideroad reflect conditions between January 2002 and December 2006. The collision frequencies, collision rates and collision characteristics are summarized in **Tables 9 and 10**.

Table 9 Highway 401 Vehicle Collision History

Highway 401	Total Collisions	Collision Rate	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
11th Conc. Road to 9th Conc. Road	15	0.13	4 27%	9 60%	2 13%	4 27%	0 0%	9 60%	2 13%	0 0%	0 0%	0 0%	8 53%	7 47%	0 0%	9 60%	2 13%	3 20%	1 7%	0 0%	12 80%	0 0%	1 7%	1 7%	0 0%	0 0%	1 6%

While 60% of the collisions within this section of Highway 401 occurred in dark conditions, the collision frequency and rate are both low and the proportions represented by the various lighting levels will be sensitive to this fact. This sensitivity may also partially explain the proportion of injurious collisions (approximately half of all collisions). The provincial average collision rate for freeways for the period represented by the data ranges between 0.5 and 0.6 collisions per million vehicle-kilometres. The rate for this section of Highway 401 is clearly much lower than this, indicating that it does not appear to be collision prone.

Table 10 Highway 3 Vehicle Collision History

Highway 3	Total Collisions	Collision Rate	Lighting Conditions			Collision Type							Severity			Road Surface					Environment Condition						
			Daylight	Dark/Art. Dark	Other	Rear End	Angle	Single Vehicle	Side Swipe	Turning Mvmt.	Approach	Other	Prop. Damage	Injury	Fatality	Dry	Wet	Snow	Ice	Other	Clear	Rain	Snow	Drifting Snow	Freezing Rain	Fog/Mist	Other
County Road 34 to Sexton Side Road	41	0.54	28 68%	12 29%	1 3%	12 29%	2 5%	19 46%	4 10%	3 7%	1 3%	0 0%	30 73%	10 24%	1 3%	34 83%	0 0%	6 14%	0 0%	1 3%	34 83%	0 0%	6 14%	0 0%	0 0%	0 0%	1 3%

The collision data for Highway 3 does not indicate any noticeable deficiencies related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions. The provincial average collision rate for 'other King's highways' for the period represented by the data ranges between 0.7 and 0.8 collisions per million vehicle-kilometres and the rate for Highway 3 is clearly below this average.

4. STUDY FINDINGS

4.1 Existing Operating Conditions

All current intersection operating conditions are manageable during the weekday morning and afternoon peak hours. Notwithstanding this, the most notable existing impacts and possible future considerations include the following:

- The Forest Glade Drive and South Service Road approaches to Lauzon Parkway operate adequately under existing conditions (with split phase control) and sensitivity analysis confirms that some future growth can be accommodated while maintaining this form of control. Future traffic analysis will need to confirm any benefit of modifying lane geometry to facilitate conventional (not split phase) traffic control.
- While current operations at the offset County Road 42 intersections with Lauzon Parkway and County Road 17 are manageable, the southbound left-turn turn movement is approaching capacity during the afternoon peak hour. Sensitivity analysis confirms that the consolidation of these intersections through a Lauzon Parkway Extension will reduce this capacity deficiency.
- Operating conditions at the County Road 42 intersection with Walker Road are manageable, despite queue lengths of 120 to 210 metres on the Walker Road approaches to this intersection. Sensitivity analysis indicates that modifications to the traffic signal timings are unlikely to provide any improvement with respect to queuing.
- Operations at the County Road 42 intersection with County Road 19 also reflect manageable impacts with critical movement capacity utilization in the range of 80 to 85%. Minor increases to cycle length can increase available capacity without changes to lane geometry to accommodate some amount of short term growth, as required.

4.2 Collision History

The review of collision history identified the following:

- Approximately 70% of all collisions occurring along Lauzon Parkway and County Road 17 occurred at the intersections with Twin Oaks Drive and County Road 42.
- Nearly half (45%) of the collisions at the Lauzon Parkway/Twin Oaks Drive intersection were rear-end collisions and the proximity of the intersection to the E.C. Row Expressway west to south ramp, as well as the profile of east and south intersection approaches may be contributing factors. Further review of the existing conditions at the E.C. Row Interchange (including roadway geometrics, intersection spacing, traffic operations and roadway safety) is included in the *Lauzon Parkway/E.C. Row Expressway Interchange Existing and Future Conditions Report.*
- One half of the collisions at the Lauzon Parkway/County Road 42 intersection were rear-end collisions and the proximity to the County Road 17 intersection and the offset traffic signal control at these locations are likely the largest contributing factors to the higher collision frequency at this location. Consolidation of these intersections can be expected to enhance safety and reduce collision frequency.

- Collisions at the Division Road intersection with Walker Road represent nearly 30% of all collisions that occurred along County Road 42/Division Road between Walker Road and County Road 25.
- More than half (53%) of the collisions at the Division Road/Walker Road intersection were rear-end collisions. While sight lines and driver workload do not appear to be primary contributing factors, there are a number of entrances within 50 metres of the intersection and vehicle manoeuvres at these entrances could be a contributing factor.
- A total of 24 collisions occurred at the County Road 42 (Division Road) intersection with Riberdy Road over five years and while no trend can be identified based on the available summary level data, the proximity of the intersection to Walker Road and related queuing impacts may be contributing factors.
- A total of 19 collisions occurred at the County Road 42/Lauzon Road intersection over five years and nearly 60% of these were rear-end collisions and were split between the major and minor street approaches. A total of 24 collisions occurred within the adjacent section of County Road 42 between Lauzon Road and County Road 43 over five years. Road surface and environmental conditions may be partially responsible for the collision frequency at these locations.
- Eight (8) of the 11 collisions that occurred along County Road 42 between Lesperance Road and County Road 19 involved vehicles using the gas station entrances immediately west of County Road 19. Eastbound vehicle queuing extending from County Road 19 may be a contributing factor.
- The review of summary level collision data for the Walker Road intersection with Legacy Park Drive does not identify any collision trend related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions.
- The historical collision frequency and collision rate for Highway 401 between 11th Concession Road and 9th Concession Road are both very low and therefore, no trends can be established from the collision data.
- The review of collision data for Highway 3 between Talbot Road and Sexton Sideroad does not indicate any noticeable trend related to lighting conditions, collision impact type, severity, road surface condition or environmental conditions.

Appendix A

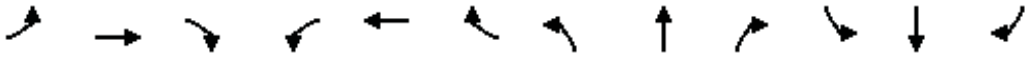
Intersection Level of Service Analysis Existing Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	0	8	0	20	4	887	22	20	655	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt					0.904			0.996			0.999	
Flt Protected		0.950			0.986						0.999	
Satd. Flow (prot)	0	1203	0	0	1217	0	0	3332	0	0	3351	0
Flt Permitted		0.737			0.915			0.953			0.908	
Satd. Flow (perm)	0	934	0	0	1129	0	0	3176	0	0	3046	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			5			1	
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		216.4			497.1			162.2			355.0	
Travel Time (s)		15.6			35.8			9.7			21.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	50%	0%	0%	25%	0%	45%	0%	8%	5%	25%	7%	0%
Adj. Flow (vph)	2	0	0	9	0	22	4	964	24	22	712	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	31	0	0	992	0	0	738	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	73.0	73.0	0.0	73.0	73.0	0.0
Total Split (%)	27.0%	27.0%	0.0%	27.0%	27.0%	0.0%	73.0%	73.0%	0.0%	73.0%	73.0%	0.0%
Maximum Green (s)	22.0	22.0		22.0	22.0		68.0	68.0		68.0	68.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	15.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		15.0			15.0			85.0			85.0	
Actuated g/C Ratio		0.15			0.15			0.85			0.85	
v/c Ratio		0.01			0.16			0.37			0.29	
Control Delay		36.5			21.6			3.7			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		36.5			21.6			3.7			3.2	
LOS		D			C			A			A	
Approach Delay		36.5			21.6			3.7			3.2	
Approach LOS		D			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 19 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 3.9		Intersection LOS: A	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Airport Rd & Walker Rd

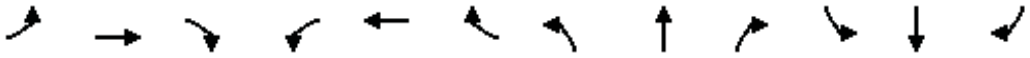


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	4	8	51	7	8	11	708	85	3	700	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	28.0		0.0	15.0		0.0	120.0		0.0	65.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.896			0.921			0.984			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1480	1159	0	1671	1613	0	1504	3229	0	1805	3338	0
Flt Permitted	0.746			0.749			0.322			0.329		
Satd. Flow (perm)	1162	1159	0	1318	1613	0	510	3229	0	625	3338	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			9			26			4	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		227.6			59.9			392.3			157.6	
Travel Time (s)		16.4			4.3			28.2			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	22%	40%	50%	8%	18%	0%	20%	10%	10%	0%	8%	0%
Adj. Flow (vph)	8	4	9	55	8	9	12	770	92	3	761	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	13	0	55	17	0	12	862	0	3	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	16.0	16.0		16.0	16.0		7.0	10.0		10.0	10.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		11.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	12.0	70.0	0.0	58.0	58.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%	12.0%	70.0%	0.0%	58.0%	58.0%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		8.0	65.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	16.0	16.0		16.0	16.0			10.0		10.0	10.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0			12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	16.0	16.0		16.0	16.0		79.2	79.2		77.0	77.0	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.79	0.79		0.77	0.77	
v/c Ratio	0.04	0.07		0.26	0.06		0.03	0.34		0.01	0.30	
Control Delay	36.4	23.7		40.6	25.2		2.3	6.2		2.7	2.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.4	23.7		40.6	25.2		2.3	6.2		2.7	2.8	
LOS	D	C		D	C		A	A		A	A	
Approach Delay		28.5			37.0			6.2			2.8	
Approach LOS		C			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 13 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 6.2		Intersection LOS: A	
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Legacy Park Dr & Walker Rd

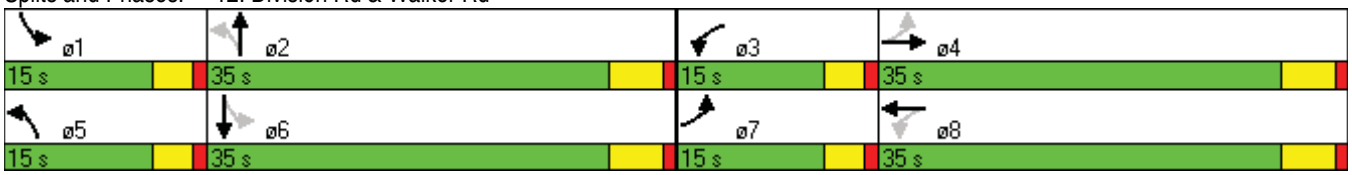


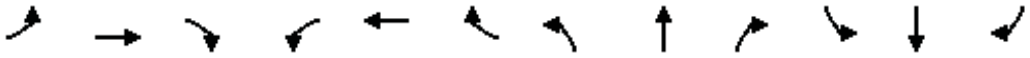
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	221	152	40	117	206	74	28	633	50	97	528	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		87.0	0.0		0.0	62.0		0.0	60.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.969			0.961			0.989			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3370	0	1703	3349	0	1444	3217	0	1641	3280	0
Flt Permitted	0.388			0.621			0.377			0.293		
Satd. Flow (perm)	709	3370	0	1113	3349	0	573	3217	0	506	3280	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			51			8			13	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		128.4			88.9			207.1			336.7	
Travel Time (s)		7.7			5.3			12.4			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	3%	6%	2%	8%	25%	9%	36%	10%	8%	11%
Adj. Flow (vph)	240	165	43	127	224	80	30	688	54	105	574	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	208	0	127	304	0	30	742	0	105	641	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		9.0	10.0		9.0	10.0	
Minimum Split (s)	10.0	15.0		10.0	15.0		13.0	15.0		13.0	15.0	
Total Split (s)	15.0	35.0	0.0	15.0	35.0	0.0	15.0	35.0	0.0	15.0	35.0	0.0
Total Split (%)	15.0%	35.0%	0.0%	15.0%	35.0%	0.0%	15.0%	35.0%	0.0%	15.0%	35.0%	0.0%
Maximum Green (s)	11.0	30.0		11.0	30.0		11.0	30.0		11.0	30.0	
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		10.0			10.0			10.0			10.0	
Flash Dont Walk (s)		10.0			10.0			15.0			15.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	26.2	14.2		24.2	13.2		59.2	51.0		60.7	54.0	
Actuated g/C Ratio	0.26	0.14		0.24	0.13		0.59	0.51		0.61	0.54	
v/c Ratio	0.80	0.41		0.39	0.62		0.07	0.45		0.25	0.36	
Control Delay	50.9	34.8		30.1	39.5		2.2	5.4		7.2	13.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.9	34.8		30.1	39.5		2.2	5.4		7.2	13.0	
LOS	D	C		C	D		A	A		A	B	
Approach Delay		43.4			36.7			5.3			12.2	
Approach LOS		D			D			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 50 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 20.2		Intersection LOS: C	
Intersection Capacity Utilization 62.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: Division Rd & Walker Rd



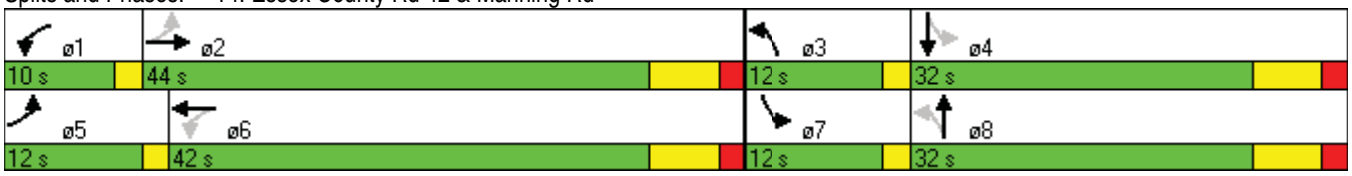


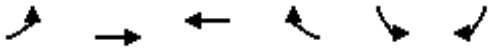
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	235	86	93	406	60	174	276	44	50	283	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	75.0		0.0	120.0		0.0	120.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.981			0.979			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1567	0	1626	1732	0	1597	1701	0	1347	1703	0
Flt Permitted	0.269			0.445			0.258			0.419		
Satd. Flow (perm)	482	1567	0	762	1732	0	434	1701	0	594	1703	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			8			8			12	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		278.4			1206.7			531.1			541.6	
Travel Time (s)		16.7			72.4			38.2			39.0	
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
Heavy Vehicles (%)	6%	18%	12%	11%	7%	12%	13%	8%	18%	34%	8%	9%
Adj. Flow (vph)	52	255	93	101	441	65	189	300	48	54	308	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	348	0	101	506	0	189	348	0	54	384	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	8.0	15.0		8.0	15.0		8.0	25.0		8.0	25.0	
Minimum Split (s)	10.0	27.0		10.0	27.0		10.0	32.0		10.0	32.0	
Total Split (s)	12.0	44.0	0.0	10.0	42.0	0.0	12.0	32.0	0.0	12.0	32.0	0.0
Total Split (%)	12.2%	44.9%	0.0%	10.2%	42.9%	0.0%	12.2%	32.7%	0.0%	12.2%	32.7%	0.0%
Maximum Green (s)	10.0	37.0		8.0	35.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	2.0	7.0	4.0	2.0	7.0	4.0	2.0	7.0	4.0	2.0	7.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Recall Mode	None	Max		None	Max		None	None		None	None	
Walk Time (s)		12.0			12.0			12.0			12.0	
Flash Dont Walk (s)		8.0			8.0			8.0			8.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	48.4	37.1		48.4	37.1		41.4	28.6		38.4	25.1	
Actuated g/C Ratio	0.51	0.39		0.51	0.39		0.43	0.30		0.40	0.26	
v/c Ratio	0.15	0.56		0.22	0.75		0.62	0.68		0.18	0.84	
Control Delay	12.2	26.3		12.9	33.8		28.1	38.7		18.4	51.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.2	26.3		12.9	33.8		28.1	38.7		18.4	51.5	
LOS	B	C		B	C		C	D		B	D	
Approach Delay		24.5			30.4			34.9			47.4	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 95.6			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 34.2		Intersection LOS: C	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 14: Essex County Rd 42 & Manning Rd



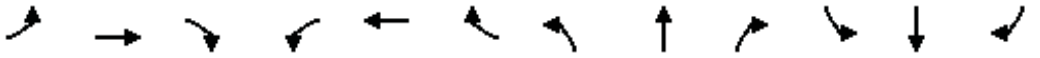


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	183	107	331	468	262	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0			0.0	0.0	100.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1624	1776	1482	1597	1538
Flt Permitted	0.455				0.950	
Satd. Flow (perm)	800	1624	1776	1482	1597	1538
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				509		289
Link Speed (k/h)		60	60		80	
Link Distance (m)		152.2	69.8		135.3	
Travel Time (s)		9.1	4.2		6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	17%	7%	9%	13%	5%
Adj. Flow (vph)	199	116	360	509	285	289
Shared Lane Traffic (%)						
Lane Group Flow (vph)	199	116	360	509	285	289
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	Left	Right	L NA	Right
Median Width(m)		3.6	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	2.0	10.0	10.0	2.0	2.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	0.6	2.0	2.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	6.0	22.0	10.0	10.0	15.0	15.0
Minimum Split (s)	10.0	28.0	18.0	18.0	20.0	20.0
Total Split (s)	18.0	70.0	52.0	52.0	40.0	40.0
Total Split (%)	16.4%	63.6%	47.3%	47.3%	36.4%	36.4%
Maximum Green (s)	14.0	64.0	46.0	46.0	35.0	35.0
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	76.0	74.0	59.5	59.5	25.0	25.0
Actuated g/C Ratio	0.69	0.67	0.54	0.54	0.23	0.23
v/c Ratio	0.31	0.11	0.37	0.49	0.78	0.50
Control Delay	8.4	7.9	12.9	2.8	54.5	6.8
Queue Delay	0.0	0.0	3.1	0.8	0.0	0.0
Total Delay	8.4	7.9	16.0	3.6	54.5	6.8
LOS	A	A	B	A	D	A
Approach Delay		8.2	8.7		30.5	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 98 (89%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 33: Division Rd & Lauzon Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	41	87	18	18	55	151	498	79	179	379	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	90.0		110.0	230.0		0.0	170.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.898				0.850		0.979			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1505	0	1121	1792	1272	1687	3290	0	1719	3275	0
Flt Permitted	0.744			0.571			0.498			0.393		
Satd. Flow (perm)	1321	1505	0	674	1792	1272	884	3290	0	711	3275	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				60		22			8	
Link Speed (k/h)		50			50			70			70	
Link Distance (m)		818.7			740.2			340.7			219.3	
Travel Time (s)		58.9			53.3			17.5			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	12%	14%	61%	6%	27%	7%	7%	10%	5%	9%	13%
Adj. Flow (vph)	30	45	95	20	20	60	164	541	86	195	412	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	140	0	20	20	60	164	627	0	195	437	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	8.0	12.0		8.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	12.0	18.0		12.0	18.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	26.0	25.0	49.0	0.0	25.0	49.0	0.0
Total Split (%)	26.0%	26.0%	0.0%	26.0%	26.0%	26.0%	25.0%	49.0%	0.0%	25.0%	49.0%	0.0%
Maximum Green (s)	21.0	21.0		21.0	21.0	21.0	21.0	43.0		21.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	15.0	15.0		15.0	15.0	15.0	71.7	61.1		72.3	61.5	
Actuated g/C Ratio	0.15	0.15		0.15	0.15	0.15	0.72	0.61		0.72	0.62	
v/c Ratio	0.15	0.46		0.20	0.07	0.25	0.23	0.31		0.32	0.22	
Control Delay	39.2	19.9		42.7	37.4	13.0	4.2	9.6		3.2	5.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	39.2	19.9		42.7	37.4	13.0	4.2	9.6		3.2	5.7	
LOS	D	B		D	D	B	A	A		A	A	
Approach Delay		23.3			23.8			8.5			4.9	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 64 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

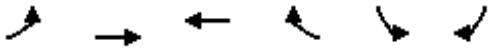
Splits and Phases: 34: S Service Rd & Lauzon Pkwy

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	263	106	4	603	196	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.957				0.997	
Flt Protected					0.953	
Satd. Flow (prot)	3031	0	0	3284	1746	0
Flt Permitted				0.953	0.953	
Satd. Flow (perm)	3031	0	0	3129	1746	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	115				1	
Link Speed (k/h)	60			60	60	
Link Distance (m)	69.8			64.2	1291.8	
Travel Time (s)	4.2			3.9	77.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	18%	4%	0%	10%	3%	20%
Adj. Flow (vph)	286	115	4	655	213	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	0	0	659	218	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (m)	10.0		2.0	10.0	2.0	
Trailing Detector (m)	0.0		0.0	0.0	0.0	
Detector 1 Position(m)	0.0		0.0	0.0	0.0	
Detector 1 Size(m)	0.6		2.0	0.6	2.0	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phase	2		6	6	8	
Switch Phase						
Minimum Initial (s)	10.0		10.0	10.0	12.0	

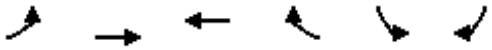
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	16.0		16.0	16.0	17.0	
Total Split (s)	80.0	0.0	80.0	80.0	30.0	0.0
Total Split (%)	72.7%	0.0%	72.7%	72.7%	27.3%	0.0%
Maximum Green (s)	74.0		74.0	74.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	5.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	80.2			80.2	18.8	
Actuated g/C Ratio	0.73			0.73	0.17	
v/c Ratio	0.18			0.29	0.73	
Control Delay	0.4			6.0	56.8	
Queue Delay	0.4			0.0	0.3	
Total Delay	0.8			6.0	57.1	
LOS	A			A	E	
Approach Delay	0.8			6.0	57.1	
Approach LOS	A			A	E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 43 (39%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 39.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 35: Division Rd & Essex County Rd 17



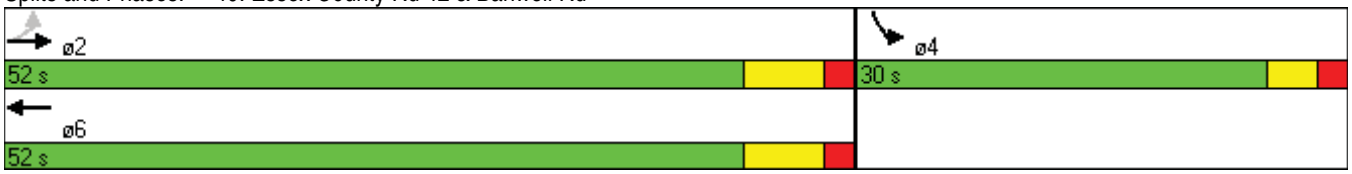
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	241	518	114	51	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	120.0			0.0	0.0	0.0
Storage Lanes	1			0	1	0
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.976		0.917	
Flt Protected	0.950				0.981	
Satd. Flow (prot)	1517	1624	1695	0	1656	0
Flt Permitted	0.354				0.981	
Satd. Flow (perm)	565	1624	1695	0	1656	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			21		89	
Link Speed (k/h)		60	60		60	
Link Distance (m)		1528.0	1260.0		511.7	
Travel Time (s)		91.7	75.6		30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	19%	17%	11%	2%	2%	4%
Adj. Flow (vph)	34	262	563	124	55	89
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	262	687	0	144	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru		Left	
Leading Detector (m)	2.0	10.0	10.0		2.0	
Trailing Detector (m)	0.0	0.0	0.0		0.0	
Detector 1 Position(m)	0.0	0.0	0.0		0.0	
Detector 1 Size(m)	2.0	0.6	0.6		2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm					
Protected Phases		2	6		4	
Permitted Phases	2					

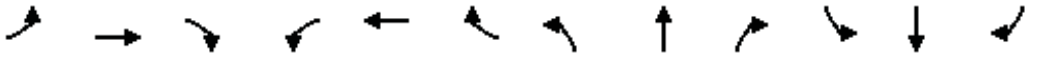


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	2	2	6		4	
Switch Phase						
Minimum Initial (s)	45.0	45.0	45.0		10.0	
Minimum Split (s)	52.0	52.0	52.0		15.0	
Total Split (s)	52.0	52.0	52.0	0.0	30.0	0.0
Total Split (%)	63.4%	63.4%	63.4%	0.0%	36.6%	0.0%
Maximum Green (s)	45.0	45.0	45.0		25.0	
Yellow Time (s)	5.0	5.0	5.0		3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	4.0	5.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	5.0	5.0	5.0		5.0	
Recall Mode	Min	Min	Min		None	
Act Effct Green (s)	49.4	49.4	49.4		11.1	
Actuated g/C Ratio	0.73	0.73	0.73		0.16	
v/c Ratio	0.08	0.22	0.56		0.42	
Control Delay	5.2	5.2	8.3		15.4	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	5.2	5.2	8.3		15.4	
LOS	A	A	A		B	
Approach Delay		5.2	8.3		15.4	
Approach LOS		A	A		B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 67.9			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 40: Essex County Rd 42 & Banwell Rd



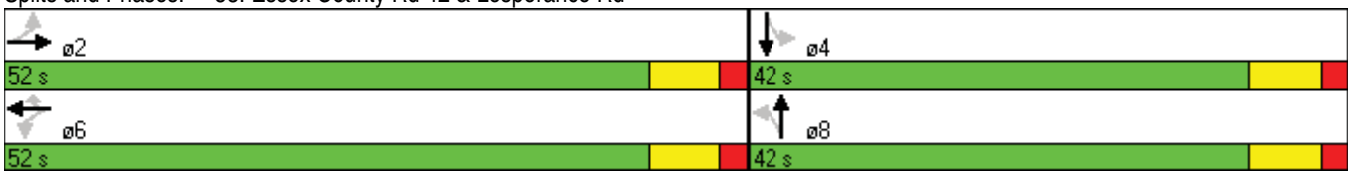


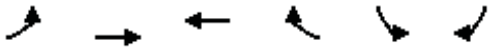
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	268	6	13	545	73	14	10	16	84	19	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	70.0		45.0	50.0		0.0	50.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00											
Frt		0.996				0.850		0.909			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1609	0	1805	1743	1468	1687	1601	0	1770	1662	0
Flt Permitted	0.397			0.578			0.702			0.739		
Satd. Flow (perm)	709	1609	0	1098	1743	1468	1247	1601	0	1377	1662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				65		17			63	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		1260.0			315.4			369.5			433.8	
Travel Time (s)		75.6			18.9			26.6			31.2	
Confl. Peds. (#/hr)	6											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	18%	0%	0%	9%	10%	7%	0%	13%	2%	0%	2%
Adj. Flow (vph)	20	291	7	14	592	79	15	11	17	91	21	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	298	0	14	592	79	15	28	0	91	84	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm		Perm	Perm			Perm		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	45.0	45.0		45.0	45.0	45.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	52.0	52.0		52.0	52.0	52.0	17.0	17.0		17.0	17.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	52.0	42.0	42.0	0.0	42.0	42.0	0.0
Total Split (%)	55.3%	55.3%	0.0%	55.3%	55.3%	55.3%	44.7%	44.7%	0.0%	44.7%	44.7%	0.0%
Maximum Green (s)	45.0	45.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	4.0	7.0	7.0	7.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0	15.0	12.0	12.0		12.0	12.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	49.7	49.7		49.7	49.7	49.7	12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.70	0.70		0.70	0.70	0.70	0.17	0.17		0.17	0.17	
v/c Ratio	0.04	0.26		0.02	0.48	0.08	0.07	0.10		0.38	0.25	
Control Delay	6.0	6.6		5.8	8.8	2.5	25.1	15.9		31.1	12.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.0	6.6		5.8	8.8	2.5	25.1	15.9		31.1	12.4	
LOS	A	A		A	A	A	C	B		C	B	
Approach Delay		6.6			8.0			19.1			22.1	
Approach LOS		A			A			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 70.9			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 100.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 53: Essex County Rd 42 & Lesperance Rd



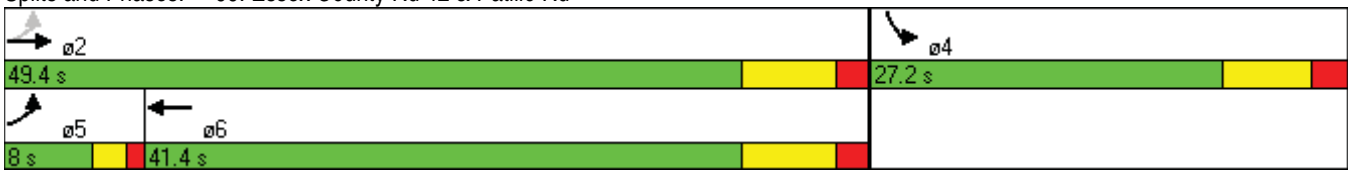


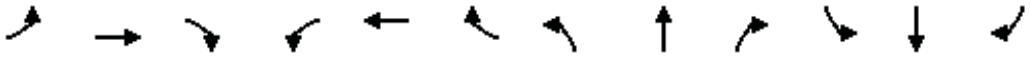
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	77	235	427	148	74	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	125.0			0.0	0.0	0.0
Storage Lanes	1			0	1	0
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.965		0.937	
Flt Protected	0.950				0.974	
Satd. Flow (prot)	1612	1624	1652	0	1515	0
Flt Permitted	0.303				0.974	
Satd. Flow (perm)	514	1624	1652	0	1515	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			29		56	
Link Speed (k/h)		50	60		60	
Link Distance (m)		2078.8	1577.9		591.4	
Travel Time (s)		149.7	94.7		35.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	17%	11%	11%	22%	6%
Adj. Flow (vph)	84	255	464	161	80	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	255	625	0	151	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru		Left	
Leading Detector (m)	2.0	10.0	10.0		2.0	
Trailing Detector (m)	0.0	0.0	0.0		0.0	
Detector 1 Position(m)	0.0	0.0	0.0		0.0	
Detector 1 Size(m)	2.0	0.6	0.6		2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt					
Protected Phases	5	2	6		4	
Permitted Phases	2					

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	5	2	6		4	
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		10.0	
Minimum Split (s)	8.0	17.4	17.4		17.2	
Total Split (s)	8.0	49.4	41.4	0.0	27.2	0.0
Total Split (%)	10.4%	64.5%	54.0%	0.0%	35.5%	0.0%
Maximum Green (s)	5.0	42.0	34.0		20.0	
Yellow Time (s)	2.0	5.4	5.4		5.0	
All-Red Time (s)	1.0	2.0	2.0		2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	4.0	7.2	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	4.0	4.0		4.0	
Recall Mode	None	Max	Max		None	
Act Effct Green (s)	49.2	46.4	40.1		11.8	
Actuated g/C Ratio	0.73	0.69	0.59		0.18	
v/c Ratio	0.18	0.23	0.63		0.49	
Control Delay	5.2	6.8	16.7		22.1	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	5.2	6.8	16.7		22.1	
LOS	A	A	B		C	
Approach Delay		6.4	16.7		22.1	
Approach LOS		A	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 76.6			
Actuated Cycle Length: 67.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 66: Essex County Rd 42 & Patillo Rd



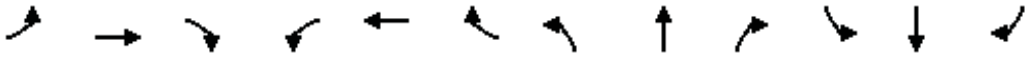


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	125	55	58	344	6	30	41	19	11	99	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.998			0.971			0.940	
Flt Protected		0.989			0.993			0.984			0.997	
Satd. Flow (prot)	0	1436	0	0	1817	0	0	1652	0	0	1689	0
Flt Permitted		0.830			0.918			0.854			0.980	
Satd. Flow (perm)	0	1205	0	0	1680	0	0	1433	0	0	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			1			19			57	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1327.2			845.0			536.2			483.9	
Travel Time (s)		59.7			38.0			24.1			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	21%	51%	0%	4%	17%	20%	2%	11%	0%	2%	10%
Adj. Flow (vph)	59	136	60	63	374	7	33	45	21	12	108	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	0	0	444	0	0	99	0	0	215	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	36.0	36.0		36.0	36.0		17.0	17.0		17.0	17.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	43.0	43.0		43.0	43.0		24.0	24.0		24.0	24.0	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	57.3%	57.3%	0.0%	57.3%	57.3%	0.0%	42.7%	42.7%	0.0%	42.7%	42.7%	0.0%
Maximum Green (s)	36.0	36.0		36.0	36.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)		36.0			36.0			17.4			17.4	
Actuated g/C Ratio		0.53			0.53			0.26			0.26	
v/c Ratio		0.39			0.49			0.26			0.46	
Control Delay		10.4			12.4			18.5			18.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			12.4			18.5			18.8	
LOS		B			B			B			B	
Approach Delay		10.4			12.4			18.5			18.8	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 67.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 68: Essex County Rd 42 & Puce Rd

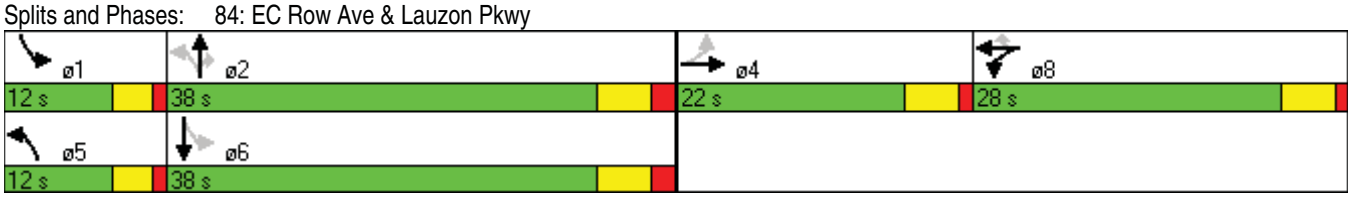


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	36	32	532	86	41	98	569	294	43	697	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	290.0		0.0	70.0		0.0	190.0		0.0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.929				0.850			0.850		0.999	
Flt Protected	0.950			0.950	0.965		0.950			0.950		
Satd. Flow (prot)	1357	1694	0	1698	1706	1509	1770	4988	1583	1687	4937	0
Flt Permitted	0.312			0.950	0.965		0.275			0.407		
Satd. Flow (perm)	446	1694	0	1698	1706	1509	512	4988	1583	723	4937	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35				45			320		1	
Link Speed (k/h)		50			50			70			70	
Link Distance (m)		644.4			654.7			295.7			652.7	
Travel Time (s)		46.4			47.1			15.2			33.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	8%	0%	1%	5%	7%	2%	4%	2%	7%	5%	0%
Adj. Flow (vph)	3	39	35	578	93	45	107	618	320	47	758	5
Shared Lane Traffic (%)				42%								
Lane Group Flow (vph)	3	74	0	335	336	45	107	618	320	47	763	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Split		Perm	pm+pt		Perm	pm+pt		
Protected Phases		4		8	8		5	2		1	6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	16.0	16.0		11.0	11.0	11.0	6.0	16.0	16.0	6.0	16.0	
Minimum Split (s)	21.0	21.0		16.0	16.0	16.0	10.0	22.0	22.0	10.0	22.0	
Total Split (s)	22.0	22.0	0.0	28.0	28.0	28.0	12.0	38.0	38.0	12.0	38.0	0.0
Total Split (%)	22.0%	22.0%	0.0%	28.0%	28.0%	28.0%	12.0%	38.0%	38.0%	12.0%	38.0%	0.0%
Maximum Green (s)	17.0	17.0		23.0	23.0	23.0	8.0	32.0	32.0	8.0	32.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	4.0	6.0	6.0	4.0	6.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	16.0	16.0						16.0	16.0		16.0	
Flash Dont Walk (s)	10.0	10.0						14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	16.0	16.0		22.7	22.7	22.7	49.4	42.6	42.6	47.0	38.0	
Actuated g/C Ratio	0.16	0.16		0.23	0.23	0.23	0.49	0.43	0.43	0.47	0.38	
v/c Ratio	0.04	0.25		0.87	0.87	0.12	0.31	0.29	0.37	0.12	0.41	
Control Delay	37.3	24.1		60.4	60.4	10.0	17.1	22.0	7.0	15.9	25.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.3	24.1		60.4	60.4	10.0	17.1	22.0	7.0	15.9	25.5	
LOS	D	C		E	E	A	B	C	A	B	C	
Approach Delay		24.7			57.3			16.9			24.9	
Approach LOS		C			E			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 55.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 84: EC Row Ave & Lauzon Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	6	0	0	12	20	694	0	0	648	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		85.0	0.0		0.0	55.0		0.0	80.0		100.0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.865					0.992	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	0	1615	0	0	1644	1805	3252	0	0	3329	0
Flt Permitted	0.950						0.348					
Satd. Flow (perm)	1805	0	1615	0	0	1644	661	3252	0	0	3329	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			7			240					8	
Link Speed (k/h)		50			50			60			50	
Link Distance (m)		218.9			87.5			303.8			207.1	
Travel Time (s)		15.8			6.3			18.2			14.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	11%	0%	0%	8%	0%
Adj. Flow (vph)	5	0	7	0	0	13	22	754	0	0	704	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	0	7	0	0	13	22	754	0	0	744	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1		1			1	1	2			2	
Detector Template	Left		Right			Right	Left	Thru			Thru	
Leading Detector (m)	2.0		2.0			2.0	2.0	10.0			10.0	
Trailing Detector (m)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Position(m)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Size(m)	2.0		2.0			2.0	2.0	0.6			0.6	
Detector 1 Type	Cl+Ex		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 2 Position(m)								9.4			9.4	
Detector 2 Size(m)								0.6			0.6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	custom		custom			custom	pm+pt					
Protected Phases							5	2			6	
Permitted Phases	4		4			8	2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4		4			8	5	2			6	
Switch Phase												
Minimum Initial (s)	14.0		14.0			14.0	10.0	12.0			12.0	
Minimum Split (s)	19.0		19.0			19.0	14.0	17.0			17.0	
Total Split (s)	30.0	0.0	30.0	0.0	0.0	30.0	15.0	70.0	0.0	0.0	55.0	0.0
Total Split (%)	30.0%	0.0%	30.0%	0.0%	0.0%	30.0%	15.0%	70.0%	0.0%	0.0%	55.0%	0.0%
Maximum Green (s)	25.0		25.0			25.0	11.0	65.0			50.0	
Yellow Time (s)	4.0		4.0			4.0	3.0	4.0			4.0	
All-Red Time (s)	1.0		1.0			1.0	1.0	1.0			1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	5.0	4.0
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0			3.0	3.0	3.0			3.0	
Recall Mode	None		None			None	None	C-Max			C-Max	
Walk Time (s)	14.0		14.0					12.0			12.0	
Flash Dont Walk (s)	10.0		10.0					12.0			12.0	
Pedestrian Calls (#/hr)	0		0					0			0	
Act Effct Green (s)	14.0		14.0			14.0	92.2	95.2			88.6	
Actuated g/C Ratio	0.14		0.14			0.14	0.92	0.95			0.89	
v/c Ratio	0.02		0.03			0.03	0.03	0.24			0.25	
Control Delay	37.4		21.5			0.2	0.6	0.5			2.1	
Queue Delay	0.0		0.0			0.0	0.0	0.0			0.0	
Total Delay	37.4		21.5			0.2	0.6	0.5			2.1	
LOS	D		C			A	A	A			A	
Approach Delay								0.5			2.1	
Approach LOS								A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 55 (55%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 1.5		Intersection LOS: A	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 100: Home Depot Entrance & Walker Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	4	28	3	0	0	24	672	6	5	641	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		40.0	25.0		0.0	110.0		0.0	75.0		70.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850					0.999				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1900	1509	1805	1900	0	1805	3252	0	1805	3374	1524
Flt Permitted	0.757			0.755			0.362			0.372		
Satd. Flow (perm)	1438	1900	1509	1434	1900	0	688	3252	0	707	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30					2				20
Link Speed (k/h)		50			50			60			50	
Link Distance (m)		272.7			192.5			174.6			319.7	
Travel Time (s)		19.6			13.9			10.5			23.0	
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
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	0%	11%	0%	0%	7%	6%
Adj. Flow (vph)	13	4	30	3	0	0	26	730	7	5	697	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	4	30	3	0	0	26	737	0	5	697	20
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm		Perm	Perm			pm+pt			Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0		7.0	12.0		12.0	12.0	12.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0		11.0	17.0		17.0	17.0	17.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	12.0	72.0	0.0	60.0	60.0	60.0
Total Split (%)	28.0%	28.0%	28.0%	28.0%	28.0%	0.0%	12.0%	72.0%	0.0%	60.0%	60.0%	60.0%
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0		8.0	67.0		55.0	55.0	55.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	12.0	12.0	12.0	12.0	12.0			12.0		12.0	12.0	12.0
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	9.0			12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	0
Act Effct Green (s)	12.0	12.0	12.0	12.0			85.8	86.8		82.4	82.4	82.4
Actuated g/C Ratio	0.12	0.12	0.12	0.12			0.86	0.87		0.82	0.82	0.82
v/c Ratio	0.08	0.02	0.14	0.02			0.04	0.26		0.01	0.25	0.02
Control Delay	40.4	39.0	15.9	39.3			1.2	1.0		3.4	3.2	2.0
Queue Delay	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	0.0
Total Delay	40.4	39.0	15.9	39.3			1.2	1.0		3.4	3.2	2.0
LOS	D	D	B	D			A	A		A	A	A
Approach Delay		24.6						1.0			3.2	
Approach LOS		C						A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.26			
Intersection Signal Delay: 2.8		Intersection LOS: A	
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

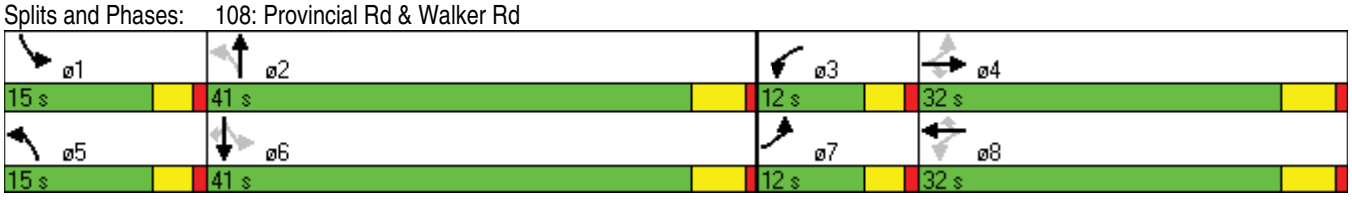
Splits and Phases: 103: Best Buy Entrance & Walker Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	87	99	145	218	209	135	589	52	126	622	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		70.0	88.0		100.0	107.0		0.0	140.0		48.0
Storage Lanes	1		2	1		1	1		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.988				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3008	1392	1612	3312	1495	1626	3171	0	1671	3406	1615
Flt Permitted	0.604			0.555			0.330			0.324		
Satd. Flow (perm)	981	3008	1392	942	3312	1495	565	3171	0	570	3406	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			108			227		10				12
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		500.9			344.9			669.0			392.3	
Travel Time (s)		36.1			24.8			48.2			28.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	20%	16%	12%	9%	8%	11%	11%	29%	8%	6%	0%
Adj. Flow (vph)	7	95	108	158	237	227	147	640	57	137	676	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	95	108	158	237	227	147	697	0	137	676	12
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	12.0	12.0	8.0	12.0	12.0	8.0	15.0		8.0	15.0	15.0
Minimum Split (s)	12.0	17.0	17.0	12.0	17.0	17.0	12.0	20.0		12.0	20.0	20.0
Total Split (s)	12.0	32.0	32.0	12.0	32.0	32.0	15.0	41.0	0.0	15.0	41.0	41.0
Total Split (%)	12.0%	32.0%	32.0%	12.0%	32.0%	32.0%	15.0%	41.0%	0.0%	15.0%	41.0%	41.0%
Maximum Green (s)	8.0	27.0	27.0	8.0	27.0	27.0	11.0	36.0		11.0	36.0	36.0
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	4.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		12.0	12.0		12.0	12.0		15.0			15.0	15.0
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	22.0	13.0	13.0	25.2	22.6	22.6	62.3	52.0		61.8	51.7	51.7
Actuated g/C Ratio	0.22	0.13	0.13	0.25	0.23	0.23	0.62	0.52		0.62	0.52	0.52
v/c Ratio	0.03	0.24	0.39	0.54	0.32	0.44	0.33	0.42		0.30	0.38	0.01
Control Delay	26.8	40.2	12.1	38.4	34.4	7.9	8.8	16.0		5.1	9.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	26.8	40.2	12.1	38.4	34.4	7.9	8.8	16.0		5.1	9.1	2.3
LOS	C	D	B	D	C	A	A	B		A	A	A
Approach Delay		25.3			25.7			14.7			8.3	
Approach LOS		C			C			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 51 (51%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 108: Provincial Rd & Walker Rd



1: Airport Rd & Walker Rd Performance by movement

Movement	EBL	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.1	0.1	0.0	0.4	0.0	0.1	0.3	0.0	0.9
Delay / Veh (s)	47.4	63.1	10.4	4.0	1.5	1.0	8.2	1.4	0.7	2.0
Total Stops	2	6	20	2	32	1	16	33	0	112
Travel Dist (km)	0.4	3.1	10.4	0.5	142.6	3.8	8.0	233.7	1.5	403.8
Travel Time (hr)	0.0	0.2	0.3	0.0	2.8	0.1	0.2	4.3	0.0	8.0
Avg Speed (kph)	12	18	35	36	51	40	38	54	49	51
Fuel Used (l)	0.0	0.3	0.8	0.0	9.9	0.2	0.7	20.9	0.1	33.0
HC Emissions (g)	2	5	28	0	78	1	15	186	0	314
CO Emissions (g)	29	79	474	1	1575	14	319	5116	16	7623
NOx Emissions (g)	4	12	73	0	240	2	39	530	1	901
Vehicles Entered	2	6	21	3	883	23	23	658	4	1623
Vehicles Exited	2	6	21	3	883	23	23	658	4	1623
Hourly Exit Rate	2	6	21	3	883	23	23	658	4	1623
Input Volume	2	8	20	4	888	22	20	655	4	1623
% of Volume	100	75	105	75	99	105	115	100	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

3: Legacy Park Dr & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.0	0.0	0.6	0.1	0.0	0.0	1.4	0.2	0.0	0.7	0.0
Delay / Veh (s)	43.4	36.7	6.2	45.6	20.9	5.0	10.6	7.1	6.2	9.9	3.5	2.8
Total Stops	5	3	8	43	4	7	8	162	21	2	116	4
Travel Dist (km)	1.4	0.9	1.9	2.5	0.4	0.4	4.4	269.3	34.6	0.4	111.4	2.9
Travel Time (hr)	0.1	0.1	0.1	0.7	0.1	0.0	0.1	7.0	0.9	0.0	3.1	0.1
Avg Speed (kph)	13	15	31	4	6	14	34	38	36	23	36	33
Fuel Used (l)	0.1	0.1	0.2	0.8	0.1	0.1	0.4	23.6	2.8	0.0	8.8	0.2
HC Emissions (g)	3	3	6	4	2	0	6	216	20	0	73	0
CO Emissions (g)	58	46	100	71	34	3	115	4347	421	1	1427	8
NOx Emissions (g)	7	6	15	8	5	0	16	608	57	0	198	1
Vehicles Entered	6	4	9	48	9	8	11	691	88	3	751	18
Vehicles Exited	6	4	9	48	9	8	11	690	89	3	751	18
Hourly Exit Rate	6	4	9	48	9	8	11	690	89	3	751	18
Input Volume	7	4	8	51	10	8	11	709	85	3	742	17
% of Volume	86	100	112	94	90	100	100	97	105	100	101	106
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Legacy Park Dr & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	3.1
Delay / Veh (s)	6.8
Total Stops	383
Travel Dist (km)	430.5
Travel Time (hr)	12.3
Avg Speed (kph)	35
Fuel Used (l)	37.2
HC Emissions (g)	333
CO Emissions (g)	6631
NOx Emissions (g)	921
Vehicles Entered	1646
Vehicles Exited	1646
Hourly Exit Rate	1646
Input Volume	1655
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

5: Moxlay Ave & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1	0.0	0.8
Delay / Veh (s)	15.0	13.9	4.6	8.5	5.8	5.7	2.4	4.0	0.6	0.4	1.8
Total Stops	4	1	35	1	6	6	3	0	0	0	56
Travel Dist (km)	1.1	0.2	9.3	0.1	0.5	3.4	307.5	5.2	106.2	1.6	434.9
Travel Time (hr)	0.0	0.0	0.3	0.0	0.0	0.1	6.1	0.1	1.9	0.0	8.6
Avg Speed (kph)	27	24	36	14	19	41	50	42	56	42	51
Fuel Used (l)	0.1	0.0	0.7	0.0	0.1	0.3	29.4	0.5	7.6	0.1	38.7
HC Emissions (g)	2	0	1	0	0	1	258	19	60	0	340
CO Emissions (g)	31	1	44	1	6	32	6425	347	1258	7	8151
NOx Emissions (g)	4	0	3	0	0	2	770	49	187	1	1017
Vehicles Entered	4	1	35	1	6	10	909	15	656	10	1647
Vehicles Exited	4	1	35	1	6	10	908	15	656	10	1646
Hourly Exit Rate	4	1	35	1	6	10	908	15	656	10	1646
Input Volume	5	1	33	1	6	10	910	16	654	10	1646
% of Volume	80	100	106	100	100	100	100	94	100	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

12: Division Rd & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	2.8	1.6	0.1	1.0	2.1	0.5	0.1	2.3	0.2	0.5	1.8	0.2
Delay / Veh (s)	46.1	37.5	4.4	30.4	34.9	22.0	14.0	13.1	12.4	17.2	12.3	9.0
Total Stops	244	122	33	102	164	65	18	229	23	80	222	29
Travel Dist (km)	26.5	18.8	5.2	9.6	17.2	6.3	4.8	131.2	10.3	31.6	173.5	21.1
Travel Time (hr)	3.4	1.9	0.2	1.3	2.4	0.7	0.2	4.6	0.4	1.1	4.8	0.6
Avg Speed (kph)	8	10	27	8	7	9	25	29	25	30	36	36
Fuel Used (l)	3.9	2.3	0.3	1.4	3.0	0.8	0.3	9.9	0.7	2.2	12.2	1.3
HC Emissions (g)	10	7	1	4	8	4	6	78	22	18	85	13
CO Emissions (g)	226	171	35	85	221	77	95	1609	351	334	1800	231
NOx Emissions (g)	23	16	2	9	25	9	13	211	51	49	249	34
Vehicles Entered	218	154	43	118	217	76	24	641	51	97	540	66
Vehicles Exited	218	154	42	119	216	76	24	642	51	96	538	65
Hourly Exit Rate	218	154	42	119	216	76	24	642	51	96	538	65
Input Volume	221	152	40	117	218	74	28	639	50	97	541	62
% of Volume	99	101	105	102	99	103	86	100	102	99	99	105
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

12: Division Rd & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	13.1
Delay / Veh (s)	21.0
Total Stops	1331
Travel Dist (km)	456.2
Travel Time (hr)	21.5
Avg Speed (kph)	21
Fuel Used (l)	38.4
HC Emissions (g)	255
CO Emissions (g)	5236
NOx Emissions (g)	693
Vehicles Entered	2245
Vehicles Exited	2241
Hourly Exit Rate	2241
Input Volume	2239
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

14: Essex County Rd 42 & Manning Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.4	1.6	0.4	0.8	4.2	0.5	2.1	2.4	0.3	0.4	4.0	0.8
Delay / Veh (s)	25.6	21.0	17.0	30.7	33.4	31.0	42.8	32.0	24.1	26.7	50.9	42.0
Total Stops	46	147	55	82	289	47	189	201	37	46	290	71
Travel Dist (km)	13.2	65.4	21.8	106.6	508.4	70.6	91.1	140.2	24.4	27.8	151.9	36.8
Travel Time (hr)	0.6	2.8	0.9	2.7	12.8	1.8	4.0	5.2	0.8	1.0	7.1	1.6
Avg Speed (kph)	22	24	26	40	40	40	23	27	29	28	21	23
Fuel Used (l)	1.0	5.1	1.5	7.2	34.7	4.8	8.4	12.2	2.1	2.5	14.4	3.3
HC Emissions (g)	6	65	17	43	181	47	74	78	28	58	89	25
CO Emissions (g)	112	1114	293	762	3153	791	1416	1610	499	1023	1784	481
NOx Emissions (g)	15	157	42	123	518	126	188	210	70	146	227	63
Vehicles Entered	49	277	84	92	452	62	172	266	46	52	284	69
Vehicles Exited	50	278	84	91	450	62	174	267	46	53	288	69
Hourly Exit Rate	50	278	84	91	450	62	174	267	46	53	288	69
Input Volume	48	283	86	93	440	60	174	276	44	50	283	70
% of Volume	104	98	98	98	102	103	100	97	105	106	102	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

14: Essex County Rd 42 & Manning Rd Performance by movement

Movement	All
Total Delay (hr)	17.8
Delay / Veh (s)	33.6
Total Stops	1500
Travel Dist (km)	1258.3
Travel Time (hr)	41.3
Avg Speed (kph)	31
Fuel Used (l)	97.2
HC Emissions (g)	709
CO Emissions (g)	13036
NOx Emissions (g)	1886
Vehicles Entered	1905
Vehicles Exited	1912
Hourly Exit Rate	1912
Input Volume	1907
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

19: Division Rd & Riberdy Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.2	0.1	0.0	0.2	0.1	0.6
Delay / Veh (s)	6.1	2.9	0.9	0.2	12.0	4.7	2.7
Total Stops	16	15	1	0	52	55	139
Travel Dist (km)	3.5	23.6	17.4	2.6	15.0	15.8	78.0
Travel Time (hr)	0.2	0.8	0.4	0.1	0.5	0.5	2.4
Avg Speed (kph)	21	31	46	28	29	35	33
Fuel Used (l)	0.5	4.5	1.0	0.1	1.4	1.4	8.9
HC Emissions (g)	5	52	7	0	5	14	83
CO Emissions (g)	106	1382	190	4	183	325	2191
NOx Emissions (g)	15	150	18	0	15	37	235
Vehicles Entered	39	263	346	52	52	55	807
Vehicles Exited	38	263	346	52	52	55	806
Hourly Exit Rate	38	263	346	52	52	55	806
Input Volume	40	260	347	53	55	53	808
% of Volume	95	101	100	98	95	104	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

23: Division Rd & Baseline Rd Performance by movement

Movement	EBT	EBR	WBT	All
Total Delay (hr)	0.1	0.0	0.1	0.2
Delay / Veh (s)	1.9	1.1	0.8	1.2
Total Stops	0	0	0	0
Travel Dist (km)	87.4	26.2	47.4	161.0
Travel Time (hr)	1.6	0.5	0.9	3.1
Avg Speed (kph)	54	49	52	53
Fuel Used (l)	6.0	1.6	4.8	12.4
HC Emissions (g)	68	15	28	112
CO Emissions (g)	1328	306	879	2513
NOx Emissions (g)	200	44	88	333
Vehicles Entered	241	72	396	709
Vehicles Exited	241	73	397	711
Hourly Exit Rate	241	73	397	711
Input Volume	244	70	398	712
% of Volume	99	104	100	100
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

26: Division Rd & Concession Rd 7 Performance by movement

Movement	EBT	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.1	0.2	0.1	0.1	0.4
Delay / Veh (s)	0.8	2.9	1.7	9.1	4.2	2.1
Total Stops	0	14	6	33	64	117
Travel Dist (km)	28.3	7.2	37.9	12.8	24.7	111.0
Travel Time (hr)	0.5	0.2	0.8	0.4	0.6	2.6
Avg Speed (kph)	54	31	45	36	39	43
Fuel Used (l)	2.5	0.4	3.0	0.9	1.7	8.5
HC Emissions (g)	25	1	20	2	28	76
CO Emissions (g)	591	30	448	47	484	1601
NOx Emissions (g)	75	4	62	6	72	218
Vehicles Entered	241	69	361	33	63	767
Vehicles Exited	241	70	361	33	64	769
Hourly Exit Rate	241	70	361	33	64	769
Input Volume	244	69	363	34	67	777
% of Volume	99	101	99	97	96	99
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

28: Division Rd & Airport In Entrance Performance by movement

Movement	EBL	EBT	WBT	WBR	All
Total Delay (hr)	0.0	0.0	0.4	0.0	0.4
Delay / Veh (s)	2.9	0.3	3.2	3.2	2.0
Total Stops	7	0	0	0	7
Travel Dist (km)	3.1	39.0	255.6	4.8	302.5
Travel Time (hr)	0.1	0.7	4.7	0.1	5.6
Avg Speed (kph)	36	57	55	51	55
Fuel Used (l)	0.2	2.8	17.1	0.3	20.4
HC Emissions (g)	3	34	81	5	123
CO Emissions (g)	53	652	1581	94	2380
NOx Emissions (g)	7	99	252	14	371
Vehicles Entered	23	289	411	8	731
Vehicles Exited	23	290	410	8	731
Hourly Exit Rate	23	290	410	8	731
Input Volume	24	295	410	7	736
% of Volume	96	98	100	114	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

29: Division Rd & Airport Out Entrance Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Total Delay (hr)	0.0	0.1	0.0	0.0	0.2
Delay / Veh (s)	0.4	0.8	8.1	3.5	0.8
Total Stops	0	0	6	35	41
Travel Dist (km)	31.9	52.0	0.9	5.3	90.1
Travel Time (hr)	0.7	1.0	0.0	0.2	1.8
Avg Speed (kph)	49	54	27	31	49
Fuel Used (l)	3.3	3.1	0.1	0.4	6.8
HC Emissions (g)	44	16	0	4	65
CO Emissions (g)	981	265	7	96	1349
NOx Emissions (g)	126	49	0	10	185
Vehicles Entered	305	396	6	35	742
Vehicles Exited	305	395	6	36	742
Hourly Exit Rate	305	395	6	36	742
Input Volume	311	397	7	35	750
% of Volume	98	99	86	103	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

31: Division Rd & Concession Rd 8 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.2	0.0	0.1	1.0	0.1	0.0	1.3
Delay / Veh (s)	2.0	0.6	10.3	7.4	8.6	3.7	5.4
Total Stops	0	0	7	4	29	29	69
Travel Dist (km)	166.8	1.6	35.9	647.0	15.7	15.3	882.3
Travel Time (hr)	3.0	0.0	0.7	11.9	0.4	0.4	16.4
Avg Speed (kph)	55	51	52	54	39	41	54
Fuel Used (l)	11.2	0.1	2.4	43.7	1.1	1.1	59.6
HC Emissions (g)	81	0	15	261	5	12	374
CO Emissions (g)	1527	3	288	4953	106	229	7107
NOx Emissions (g)	238	0	46	802	13	34	1132
Vehicles Entered	322	3	25	462	30	29	871
Vehicles Exited	322	3	24	459	29	29	866
Hourly Exit Rate	322	3	24	459	29	29	866
Input Volume	330	3	27	454	28	27	869
% of Volume	98	100	89	101	104	107	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

36: North Talbot Rd & Essex County Rd 17 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.3	0.1	0.5	0.0	0.1	1.1
Delay / Veh (s)	5.5	1.2	2.6	1.7	23.6	6.2	16.8	5.0
Total Stops	15	4	0	0	79	0	29	127
Travel Dist (km)	19.4	79.1	221.3	62.2	297.8	2.3	108.3	790.5
Travel Time (hr)	0.5	1.7	4.8	1.4	5.6	0.0	2.0	15.9
Avg Speed (kph)	42	48	46	44	53	57	54	50
Fuel Used (l)	1.4	6.1	16.0	4.2	18.3	0.2	6.5	52.7
HC Emissions (g)	7	101	94	20	74	12	7	315
CO Emissions (g)	155	1773	1878	410	1228	195	133	5771
NOx Emissions (g)	20	278	259	55	255	37	34	940
Vehicles Entered	32	131	397	112	77	1	28	778
Vehicles Exited	32	131	399	111	80	1	29	783
Hourly Exit Rate	32	131	399	111	80	1	29	783
Input Volume	36	129	403	112	81	1	26	788
% of Volume	89	102	99	99	99	100	112	99
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

40: Essex County Rd 42 & Banwell Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.2	0.6	2.2	0.4	0.6	0.4	4.4
Delay / Veh (s)	20.1	9.0	15.3	13.1	41.9	19.0	15.3
Total Stops	19	40	109	27	43	75	313
Travel Dist (km)	43.1	365.4	644.4	143.4	24.8	41.7	1262.8
Travel Time (hr)	0.9	6.8	13.1	3.0	1.0	1.2	26.0
Avg Speed (kph)	48	54	49	48	24	33	49
Fuel Used (l)	2.8	24.0	44.3	9.6	2.4	3.6	86.7
HC Emissions (g)	45	351	375	28	4	18	821
CO Emissions (g)	732	5692	6638	584	251	584	14480
NOx Emissions (g)	134	1065	1139	95	15	54	2503
Vehicles Entered	29	245	516	115	49	82	1036
Vehicles Exited	28	243	517	115	49	82	1034
Hourly Exit Rate	28	243	517	115	49	82	1034
Input Volume	31	242	518	114	51	82	1038
% of Volume	90	100	100	101	96	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

47: Baseline Rd & Essex County Rd 17 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0
Delay / Veh (s)		8.3	1.5	3.7	9.2	2.2	4.3	9.1	9.2	3.7	2.8	1.7
Total Stops	0	9	4	2	15	65	0	0	0	3	0	0
Travel Dist (km)	0.2	5.3	2.3	1.3	9.3	40.9	4.0	509.0	32.9	35.6	117.2	3.1
Travel Time (hr)	0.0	0.1	0.0	0.0	0.2	0.7	0.1	9.1	0.6	0.7	2.2	0.1
Avg Speed (kph)	56	58	63	56	57	62	57	56	56	52	54	50
Fuel Used (l)	0.0	0.5	0.2	0.1	0.8	3.4	0.3	33.0	2.2	2.6	8.8	0.3
HC Emissions (g)	0	1	1	7	2	8	0	99	33	4	34	13
CO Emissions (g)	4	96	42	138	141	629	10	2136	566	186	949	210
NOx Emissions (g)	0	5	2	18	8	36	2	357	97	18	115	37
Vehicles Entered	0	9	4	2	15	65	1	137	9	30	100	3
Vehicles Exited	0	9	4	2	15	65	1	138	9	30	99	3
Hourly Exit Rate	0	9	4	2	15	65	1	138	9	30	99	3
Input Volume	1	8	4	3	14	62	1	143	9	29	100	2
% of Volume	0	112	100	67	107	105	100	97	100	103	99	150
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

47: Baseline Rd & Essex County Rd 17 Performance by movement

Movement	All
Total Delay (hr)	0.6
Delay / Veh (s)	5.6
Total Stops	98
Travel Dist (km)	761.1
Travel Time (hr)	13.7
Avg Speed (kph)	56
Fuel Used (l)	52.0
HC Emissions (g)	201
CO Emissions (g)	5109
NOx Emissions (g)	693
Vehicles Entered	375
Vehicles Exited	375
Hourly Exit Rate	375
Input Volume	376
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

53: Essex County Rd 42 & Lesperance Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.9	0.0	0.0	1.4	0.1	0.1	0.1	0.0	0.8	0.2	0.2
Delay / Veh (s)	21.1	11.8	10.7	10.4	8.4	4.2	33.1	33.5	6.0	35.9	33.5	9.5
Total Stops	13	71	2	7	152	19	13	9	13	75	14	47
Travel Dist (km)	21.9	333.9	8.1	4.5	172.8	22.2	5.1	4.1	5.8	36.1	7.6	25.1
Travel Time (hr)	0.5	6.6	0.2	0.1	4.3	0.5	0.2	0.2	0.2	1.6	0.3	0.7
Avg Speed (kph)	45	51	50	36	41	43	21	22	36	22	23	35
Fuel Used (l)	1.5	23.0	0.5	0.3	12.0	1.3	0.5	0.4	0.5	3.4	0.7	2.0
HC Emissions (g)	7	310	1	0	102	13	1	1	5	7	1	6
CO Emissions (g)	127	5243	19	10	1953	234	43	27	109	257	41	188
NOx Emissions (g)	22	936	3	1	276	33	4	2	14	23	3	18
Vehicles Entered	18	273	7	14	588	74	14	11	16	84	18	58
Vehicles Exited	17	272	6	14	588	74	14	11	16	85	18	59
Hourly Exit Rate	17	272	6	14	588	74	14	11	16	85	18	59
Input Volume	18	275	6	13	588	73	14	10	16	84	19	58
% of Volume	94	99	100	108	100	101	100	110	100	101	95	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

53: Essex County Rd 42 & Lesperance Rd Performance by movement

Movement	All
Total Delay (hr)	3.9
Delay / Veh (s)	12.1
Total Stops	435
Travel Dist (km)	647.2
Travel Time (hr)	15.5
Avg Speed (kph)	42
Fuel Used (l)	46.0
HC Emissions (g)	454
CO Emissions (g)	8253
NOx Emissions (g)	1336
Vehicles Entered	1175
Vehicles Exited	1174
Hourly Exit Rate	1174
Input Volume	1174
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

63: Essex County Rd 42 & Elmstead Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.4	1.8	0.1	0.1	0.1	2.5
Delay / Veh (s)	8.2	4.6	13.2	12.4	11.0	5.6	9.5
Total Stops	12	10	0	0	17	49	88
Travel Dist (km)	22.8	257.4	992.8	47.5	8.7	24.7	1353.8
Travel Time (hr)	0.5	5.7	18.6	0.9	0.2	0.6	26.6
Avg Speed (kph)	43	46	53	52	37	40	51
Fuel Used (l)	1.5	17.8	68.9	3.3	0.6	1.8	94.1
HC Emissions (g)	8	178	624	47	8	16	882
CO Emissions (g)	128	2952	11049	798	154	329	15410
NOx Emissions (g)	21	475	1917	143	22	44	2622
Vehicles Entered	27	335	488	23	17	49	939
Vehicles Exited	27	335	486	23	17	49	937
Hourly Exit Rate	27	335	486	23	17	49	937
Input Volume	28	330	486	23	18	49	934
% of Volume	96	102	100	100	94	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

66: Essex County Rd 42 & Patillo Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.5	1.2	2.6	0.7	0.5	0.2	5.7
Delay / Veh (s)	24.0	17.6	19.9	16.9	24.5	12.9	19.1
Total Stops	59	74	187	69	60	57	506
Travel Dist (km)	157.4	492.6	677.9	222.1	43.3	38.8	1632.1
Travel Time (hr)	3.7	11.1	14.2	4.6	1.3	1.0	35.9
Avg Speed (kph)	42	44	48	48	33	40	46
Fuel Used (l)	10.7	33.3	45.6	14.5	3.4	2.8	110.3
HC Emissions (g)	81	431	332	103	67	16	1030
CO Emissions (g)	1267	6543	5976	1808	1293	425	17312
NOx Emissions (g)	215	1145	950	298	176	48	2833
Vehicles Entered	76	241	477	148	74	66	1082
Vehicles Exited	77	240	477	147	74	66	1081
Hourly Exit Rate	77	240	477	147	74	66	1081
Input Volume	77	235	479	148	74	65	1078
% of Volume	100	102	100	99	100	102	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

68: Essex County Rd 42 & Puce Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	0.6	0.1	0.2	1.2	0.0	0.3	0.3	0.1	0.1	0.8	0.4
Delay / Veh (s)	16.7	11.3	8.9	12.6	12.8	7.9	31.3	28.4	9.8	33.8	29.8	14.8
Total Stops	39	51	20	29	123	3	26	33	16	8	71	68
Travel Dist (km)	70.9	189.5	51.4	43.7	284.8	5.4	15.4	23.7	11.2	4.4	45.9	42.1
Travel Time (hr)	1.2	3.0	0.9	0.9	5.3	0.1	0.5	0.7	0.2	0.2	1.4	1.1
Avg Speed (kph)	57	63	57	51	54	54	31	35	47	28	32	39
Fuel Used (l)	4.7	13.4	4.3	4.0	26.6	0.5	1.6	2.4	1.1	0.5	4.9	4.3
HC Emissions (g)	49	206	175	9	164	9	22	11	13	1	17	48
CO Emissions (g)	1045	4313	3326	626	6004	221	596	539	381	96	1060	1514
NOx Emissions (g)	148	580	440	40	521	24	55	32	33	4	53	123
Vehicles Entered	56	187	52	52	341	6	29	44	21	9	95	87
Vehicles Exited	57	185	51	53	339	6	29	44	21	9	95	88
Hourly Exit Rate	57	185	51	53	339	6	29	44	21	9	95	88
Input Volume	54	182	55	58	344	6	30	41	19	11	99	87
% of Volume	106	102	93	91	99	100	97	107	111	82	96	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

68: Essex County Rd 42 & Puce Rd Performance by movement

Movement	All
Total Delay (hr)	4.3
Delay / Veh (s)	15.7
Total Stops	487
Travel Dist (km)	788.3
Travel Time (hr)	15.5
Avg Speed (kph)	51
Fuel Used (l)	68.2
HC Emissions (g)	722
CO Emissions (g)	19722
NOx Emissions (g)	2054
Vehicles Entered	979
Vehicles Exited	977
Hourly Exit Rate	977
Input Volume	986
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

100: Home Depot Entrance & Walker Rd Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.7
Delay / Veh (s)	43.0	4.5	4.4	7.6	1.1	2.0	1.9	1.8
Total Stops	4	6	11	11	9	13	1	55
Travel Dist (km)	0.8	1.4	0.9	5.9	205.3	135.6	7.4	357.3
Travel Time (hr)	0.1	0.0	0.0	0.2	3.8	3.2	0.2	7.6
Avg Speed (kph)	13	33	21	37	54	42	37	47
Fuel Used (l)	0.1	0.1	0.1	0.4	14.8	13.4	0.6	29.4
HC Emissions (g)	0	0	0	0	183	99	1	284
CO Emissions (g)	2	4	10	13	3557	2322	50	5959
NOx Emissions (g)	0	0	1	2	504	295	5	807
Vehicles Entered	4	6	11	20	750	653	35	1479
Vehicles Exited	4	6	11	20	752	654	36	1483
Hourly Exit Rate	4	6	11	20	752	654	36	1483
Input Volume	5	6	12	20	755	650	37	1485
% of Volume	80	100	92	100	100	101	97	100
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

103: Best Buy Entrance & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.9
Delay / Veh (s)	49.8	46.5	4.4	51.3	5.8	1.0	0.7	8.1	1.7	1.9	2.1
Total Stops	10	4	28	3	14	16	0	3	37	1	116
Travel Dist (km)	2.8	1.0	7.8	0.6	3.9	111.4	1.3	1.3	205.3	5.7	341.1
Travel Time (hr)	0.2	0.1	0.2	0.1	0.1	2.1	0.0	0.0	4.5	0.1	7.6
Avg Speed (kph)	13	14	35	11	33	53	42	35	46	42	45
Fuel Used (l)	0.3	0.1	0.6	0.1	0.2	8.3	0.1	0.1	14.3	0.4	24.5
HC Emissions (g)	0	0	6	0	0	102	0	0	90	2	201
CO Emissions (g)	19	6	132	5	11	2033	5	2	1601	41	3855
NOx Emissions (g)	1	0	15	0	1	283	0	0	244	6	552
Vehicles Entered	10	4	29	3	23	710	8	4	678	19	1488
Vehicles Exited	11	4	30	3	23	710	8	4	677	19	1489
Hourly Exit Rate	11	4	30	3	23	710	8	4	677	19	1489
Input Volume	12	4	28	3	24	732	6	5	674	18	1506
% of Volume	92	100	107	100	96	97	133	80	100	106	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

107: Commercial Entrance & Concession Rd 7 Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.4	2.6	1.7	0.1	0.2	0.0	0.4
Total Stops	2	16	0	0	0	0	18
Travel Dist (km)	0.1	1.3	0.2	6.8	9.3	1.0	18.7
Travel Time (hr)	0.0	0.1	0.0	0.2	0.2	0.0	0.5
Avg Speed (kph)	24	25	25	33	49	43	38
Fuel Used (l)	0.0	0.1	0.0	1.3	0.7	0.1	2.3
HC Emissions (g)	0	0	0	13	14	2	29
CO Emissions (g)	7	14	2	388	259	39	708
NOx Emissions (g)	1	1	0	37	37	5	80
Vehicles Entered	2	16	2	102	38	4	164
Vehicles Exited	2	16	2	101	38	4	163
Hourly Exit Rate	2	16	2	101	38	4	163
Input Volume	2	17	3	97	41	3	163
% of Volume	100	94	67	104	93	133	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

108: Provincial Rd & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	1.0	0.2	1.8	1.9	0.4	0.5	2.0	0.1	0.5	2.1	0.0
Delay / Veh (s)	30.9	42.0	7.7	45.5	31.2	7.1	14.1	12.9	6.6	14.0	11.7	4.2
Total Stops	4	71	86	147	163	156	104	239	12	100	251	1
Travel Dist (km)	2.4	41.2	51.1	47.4	74.5	72.6	87.8	378.3	31.6	48.4	243.0	4.5
Travel Time (hr)	0.1	1.8	1.3	2.8	3.4	2.1	2.4	9.7	0.8	1.5	7.1	0.1
Avg Speed (kph)	25	23	38	17	22	35	37	39	42	32	34	41
Fuel Used (l)	0.2	3.3	3.5	4.4	6.1	4.6	6.2	27.2	2.2	3.6	19.3	0.3
HC Emissions (g)	1	45	41	35	42	27	52	258	48	25	136	0
CO Emissions (g)	21	681	664	577	711	474	904	4453	785	471	2636	15
NOx Emissions (g)	3	111	112	84	106	72	141	693	126	68	379	2
Vehicles Entered	5	83	102	141	220	214	133	570	49	127	644	12
Vehicles Exited	5	83	103	141	220	214	133	571	49	127	644	12
Hourly Exit Rate	5	83	103	141	220	214	133	571	49	127	644	12
Input Volume	6	87	99	145	218	209	135	589	52	126	639	11
% of Volume	83	95	104	97	101	102	99	97	94	101	101	109
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

108: Provincial Rd & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	10.6
Delay / Veh (s)	16.6
Total Stops	1334
Travel Dist (km)	1082.8
Travel Time (hr)	33.0
Avg Speed (kph)	33
Fuel Used (l)	80.9
HC Emissions (g)	711
CO Emissions (g)	12392
NOx Emissions (g)	1896
Vehicles Entered	2300
Vehicles Exited	2302
Hourly Exit Rate	2302
Input Volume	2316
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

111: Christian Fellowship & Concession Rd 7 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.3		7.5	2.4	0.4	0.2	0.8
Total Stops	0	0	11	8	0	0	19
Travel Dist (km)	4.8	0.0	2.1	1.6	0.1	3.3	11.9
Travel Time (hr)	0.2	0.0	0.1	0.0	0.0	0.1	0.4
Avg Speed (kph)	24	19	32	36	31	28	27
Fuel Used (l)	0.8	0.0	0.1	0.1	0.0	0.2	1.2
HC Emissions (g)	7	0	0	1	0	1	9
CO Emissions (g)	161	2	10	28	1	18	219
NOx Emissions (g)	21	0	1	3	0	2	27
Vehicles Entered	96	0	11	8	2	52	169
Vehicles Exited	96	0	11	8	2	52	169
Hourly Exit Rate	96	0	11	8	2	52	169
Input Volume	92	1	10	8	2	56	169
% of Volume	104	0	110	100	100	93	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	140.5
Delay / Veh (s)	49.3
Total Stops	11399
Travel Dist (km)	32016.7
Travel Time (hr)	728.3
Avg Speed (kph)	44
Fuel Used (l)	2520.6
HC Emissions (g)	19539
CO Emissions (g)	422859
NOx Emissions (g)	57325
Vehicles Entered	10256
Vehicles Exited	10263
Hourly Exit Rate	10263
Input Volume	75756
% of Volume	14
Denied Entry Before	0
Denied Entry After	0

Queuing and Blocking Report

Intersection: 1: Airport Rd & Walker Rd

Movement	EB	WB	NB	NB	SB	SB	B4	B4
Directions Served	LR	LR	LT	TR	LT	TR	T	T
Maximum Queue (m)	12.4	32.0	31.0	38.4	33.9	30.8	9.2	9.0
Average Queue (m)	1.0	9.2	4.3	5.0	8.5	5.0	0.3	0.3
95th Queue (m)	6.7	24.2	18.5	22.4	25.2	20.8	6.2	6.0
Link Distance (m)	195.3	478.8	144.8	144.8	339.5	339.5	37.0	37.0
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (m)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Legacy Park Dr & Walker Rd

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (m)	16.5	22.9	22.3	28.5	15.8	57.3	66.0	7.4	39.2	41.7
Average Queue (m)	2.5	4.5	11.9	4.4	2.6	19.0	26.4	0.5	13.3	15.9
95th Queue (m)	10.7	16.0	23.4	16.4	10.9	46.6	58.5	3.8	31.9	35.8
Link Distance (m)		206.4		38.9		365.8	365.8		138.7	138.7
Upstream Blk Time (%)				0						
Queuing Penalty (veh)				0						
Storage Bay Dist (m)	28.0		15.0		120.0			65.0		
Storage Blk Time (%)	0	0	17	0						
Queuing Penalty (veh)	0	0	3	0						

Intersection: 5: Moxlay Ave & Walker Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LR	LT	TR	TR
Maximum Queue (m)	17.6	9.1	22.7	14.0	0.7
Average Queue (m)	6.6	1.8	2.2	0.5	0.0
95th Queue (m)	14.8	7.6	11.9	7.0	0.7
Link Distance (m)	253.3	66.1	311.2	311.2	144.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report

Intersection: 12: Division Rd & Walker Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (m)	79.9	56.0	16.8	48.6	39.2	49.7	24.5	74.4	83.9	39.7	57.2	67.4
Average Queue (m)	40.5	25.2	3.6	20.5	19.3	24.1	5.4	27.8	35.4	13.9	24.5	33.2
95th Queue (m)	69.7	46.5	10.6	40.1	35.0	42.9	17.0	57.5	66.3	28.9	47.3	57.7
Link Distance (m)		102.8		64.1	64.1	64.1		177.2	177.2		311.2	311.2
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (m)	80.0		87.0				62.0			60.0		
Storage Blk Time (%)	0	0						0		0	0	
Queuing Penalty (veh)	1	0						0		0	0	

Intersection: 14: Essex County Rd 42 & Manning Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (m)	43.1	101.0	77.0	156.2	79.1	112.3	64.7	145.5
Average Queue (m)	11.4	47.1	21.4	74.3	35.9	51.9	14.5	74.6
95th Queue (m)	29.7	83.7	57.1	132.7	70.0	89.4	40.0	125.3
Link Distance (m)		259.0		1187.9		516.1		524.8
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	60.0		75.0		120.0		120.0	
Storage Blk Time (%)		4	0	8	0	0	0	2
Queuing Penalty (veh)		2	0	8	1	0	0	1

Intersection: 19: Division Rd & Riberdy Rd

Movement	EB	WB	WB	SB	B20
Directions Served	LT	T	TR	LR	T
Maximum Queue (m)	44.6	3.3	3.8	31.4	7.4
Average Queue (m)	7.7	0.1	0.1	12.6	0.3
95th Queue (m)	26.8	2.4	2.0	23.2	3.9
Link Distance (m)	64.1	34.0	34.0	277.0	13.1
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23: Division Rd & Baseline Rd

Movement	
Directions Served	
Maximum Queue (m)	
Average Queue (m)	
95th Queue (m)	
Link Distance (m)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Division Rd & Concession Rd 7

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	25.6	27.4
Average Queue (m)	4.9	11.7
95th Queue (m)	17.0	22.0
Link Distance (m)	88.5	377.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Division Rd & Airport In Entrance

Movement	EB	WB
Directions Served	L	R
Maximum Queue (m)	13.9	0.9
Average Queue (m)	2.0	0.0
95th Queue (m)	9.0	0.8
Link Distance (m)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)	65.0	30.0
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Intersection: 29: Division Rd & Airport Out Entrance

Movement	SB	SB
Directions Served	L	R
Maximum Queue (m)	9.0	19.4
Average Queue (m)	1.7	6.9
95th Queue (m)	7.3	15.9
Link Distance (m)	137.7	137.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 31: Division Rd & Concession Rd 8

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	0.7	24.1	19.4
Average Queue (m)	0.0	3.1	7.4
95th Queue (m)	0.7	14.7	15.6
Link Distance (m)	528.2	1499.9	520.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 36: North Talbot Rd & Essex County Rd 17

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	23.4	1.5	38.1
Average Queue (m)	4.9	0.0	15.7
95th Queue (m)	15.9	1.0	30.4
Link Distance (m)	591.6	546.2	3815.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Intersection: 40: Essex County Rd 42 & Banwell Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (m)	24.0	58.4	109.7	47.4
Average Queue (m)	5.9	12.4	33.8	22.2
95th Queue (m)	18.0	39.1	84.6	40.3
Link Distance (m)		1513.2	1235.9	494.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	120.0			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: Baseline Rd & Essex County Rd 17

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	9.2	16.9	1.9	11.9
Average Queue (m)	2.8	8.3	0.1	1.1
95th Queue (m)	9.2	14.0	1.5	6.3
Link Distance (m)	567.5	615.6	3815.5	1267.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 53: Essex County Rd 42 & Lesperance Rd

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	T	R	L	TR	L	TR
Maximum Queue (m)	13.1	71.0	11.8	88.8	40.6	15.0	17.2	34.0	25.0
Average Queue (m)	3.0	20.3	1.9	34.3	5.3	3.2	4.3	15.8	9.1
95th Queue (m)	9.9	54.2	8.0	70.4	21.3	10.3	12.3	30.2	20.0
Link Distance (m)		1235.9		297.1			351.2		409.6
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (m)	90.0		70.0		45.0	50.0		50.0	
Storage Blk Time (%)		0		3	0			0	
Queuing Penalty (veh)		0		2	0			0	

Intersection: 63: Essex County Rd 42 & Elmstead Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	40.7	22.7
Average Queue (m)	5.7	11.0
95th Queue (m)	23.2	19.9
Link Distance (m)	862.9	489.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 66: Essex County Rd 42 & Patillo Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (m)	27.9	68.1	113.4	51.4
Average Queue (m)	12.6	21.1	49.0	22.8
95th Queue (m)	24.3	51.2	92.2	42.3
Link Distance (m)		2062.0	1559.0	574.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	125.0			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 68: Essex County Rd 42 & Puce Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	65.5	69.0	45.0	55.1
Average Queue (m)	23.8	28.7	16.0	26.5
95th Queue (m)	48.2	55.7	32.9	46.3
Link Distance (m)	1310.4	836.5	520.8	469.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 100: Home Depot Entrance & Walker Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	R	R	L	T	TR	T	TR
Maximum Queue (m)	7.9	5.8	5.9	11.1	14.0	23.0	13.7	19.1
Average Queue (m)	1.1	1.1	1.5	1.8	1.1	1.7	1.1	2.5
95th Queue (m)	5.2	4.6	5.1	6.6	6.9	11.0	6.9	12.2
Link Distance (m)	193.6		61.5		278.8	278.8	177.2	177.2
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)		85.0		55.0				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Queuing and Blocking Report

Intersection: 103: Best Buy Entrance & Walker Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	L	L	T	TR	L	T	T	R
Maximum Queue (m)	12.0	6.6	20.1	9.4	13.6	16.6	19.1	9.3	21.4	29.5	8.9
Average Queue (m)	2.8	0.9	4.1	1.0	3.0	1.3	2.7	0.8	3.8	6.2	0.4
95th Queue (m)	9.4	4.4	11.7	5.6	9.9	8.5	11.2	5.0	14.6	20.4	3.5
Link Distance (m)		249.9				150.8	150.8		300.2	300.2	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (m)	40.0		40.0	25.0	110.0			75.0			70.0
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 107: Commercial Entrance & Concession Rd 7

Movement	EB
Directions Served	LR
Maximum Queue (m)	15.2
Average Queue (m)	4.4
95th Queue (m)	12.4
Link Distance (m)	68.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 108: Provincial Rd & Walker Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B125
Directions Served	L	T	T	R	L	T	T	R	L	T	TR	T
Maximum Queue (m)	14.0	31.8	29.4	29.8	65.7	52.5	55.0	40.0	35.4	55.7	63.9	7.0
Average Queue (m)	1.4	10.3	13.0	13.3	31.7	17.8	22.6	15.5	15.7	24.5	30.6	0.2
95th Queue (m)	7.5	24.6	25.0	24.1	60.4	40.0	42.2	30.7	29.4	47.9	56.5	6.5
Link Distance (m)		475.4				319.7	319.7			640.3	640.3	53.2
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (m)	55.0		70.0	70.0	88.0			100.0	107.0			
Storage Blk Time (%)					1							
Queuing Penalty (veh)					1							

Intersection: 108: Provincial Rd & Walker Rd

Movement	B125	SB	SB	SB	SB
Directions Served	T	L	T	T	R
Maximum Queue (m)	13.5	36.6	64.8	68.7	18.3
Average Queue (m)	0.4	16.8	26.8	32.9	0.6
95th Queue (m)	9.0	29.9	51.4	57.2	10.1
Link Distance (m)	53.2		365.8	365.8	
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (m)		140.0			48.0
Storage Blk Time (%)				2	0
Queuing Penalty (veh)				0	0

Intersection: 111: Christian Fellowship & Concession Rd 7

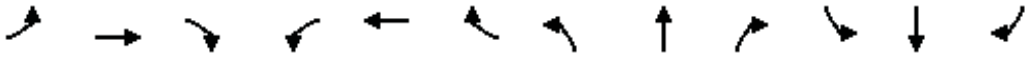
Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	1.8	12.4	1.6
Average Queue (m)	0.1	4.2	0.1
95th Queue (m)	1.7	11.6	1.5
Link Distance (m)	38.9	179.1	49.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	0	10	0	25	0	1082	10	10	1286	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt					0.904			0.999				
Flt Protected		0.950			0.986							
Satd. Flow (prot)	0	1805	0	0	1481	0	0	3496	0	0	3524	0
Flt Permitted		0.732			0.911						0.943	
Satd. Flow (perm)	0	1391	0	0	1369	0	0	3496	0	0	3323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27			2				
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		216.4			497.1			162.2			355.0	
Travel Time (s)		15.6			35.8			9.7			21.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	20%	0%	12%	0%	3%	20%	60%	2%	0%
Adj. Flow (vph)	1	0	0	11	0	27	0	1176	11	11	1398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	38	0	0	1187	0	0	1409	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	79.0	79.0	0.0	79.0	79.0	0.0
Total Split (%)	25.5%	25.5%	0.0%	25.5%	25.5%	0.0%	74.5%	74.5%	0.0%	74.5%	74.5%	0.0%
Maximum Green (s)	22.0	22.0		22.0	22.0		74.0	74.0		74.0	74.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	15.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		15.0			15.0			91.0			91.0	
Actuated g/C Ratio		0.14			0.14			0.86			0.86	
v/c Ratio		0.01			0.18			0.40			0.49	
Control Delay		39.0			21.7			5.4			4.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		39.0			21.7			5.4			4.2	
LOS		D			C			A			A	
Approach Delay		39.0			21.7			5.4			4.3	
Approach LOS		D			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 23 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Airport Rd & Walker Rd

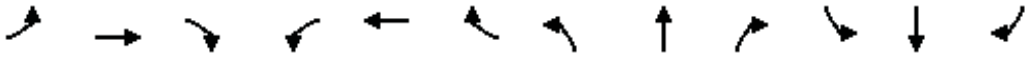


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	78	82	84	31	15	80	1045	137	18	1219	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	28.0		0.0	15.0		0.0	120.0		0.0	65.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.923			0.952			0.983			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1745	0	1787	1809	0	1770	3376	0	1805	3437	0
Flt Permitted	0.724			0.503			0.112			0.207		
Satd. Flow (perm)	1349	1745	0	946	1809	0	209	3376	0	393	3437	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			16			29			14	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		227.6			59.9			392.3			173.5	
Travel Time (s)		16.4			4.3			28.2			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	1%	1%	0%	0%	2%	5%	6%	0%	4%	0%
Adj. Flow (vph)	164	85	89	91	34	16	87	1136	149	20	1325	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	164	174	0	91	50	0	87	1285	0	20	1446	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	16.0	16.0		16.0	16.0		7.0	10.0		10.0	10.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		11.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	12.0	76.0	0.0	64.0	64.0	0.0
Total Split (%)	28.3%	28.3%	0.0%	28.3%	28.3%	0.0%	11.3%	71.7%	0.0%	60.4%	60.4%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		8.0	71.0		59.0	59.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	16.0	16.0		16.0	16.0			10.0		10.0	10.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0			12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	19.2	19.2		19.2	19.2		77.8	76.8		67.6	67.6	
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.73	0.72		0.64	0.64	
v/c Ratio	0.67	0.49		0.53	0.15		0.33	0.52		0.08	0.66	
Control Delay	53.7	32.3		50.1	26.7		8.6	17.6		7.6	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.7	32.3		50.1	26.7		8.6	17.6		7.6	7.4	
LOS	D	C		D	C		A	B		A	A	
Approach Delay		42.7			41.8			17.0			7.4	
Approach LOS		D			D			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 21 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Legacy Park Dr & Walker Rd

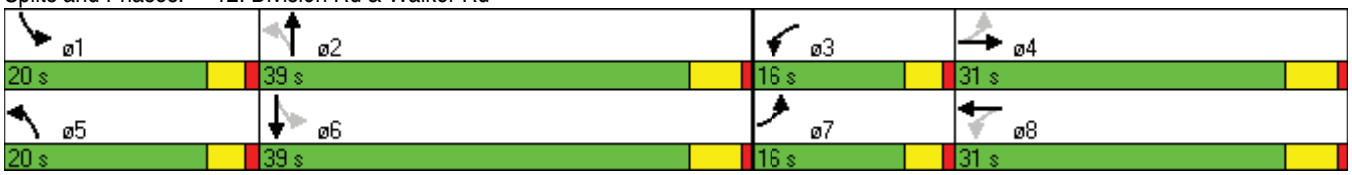


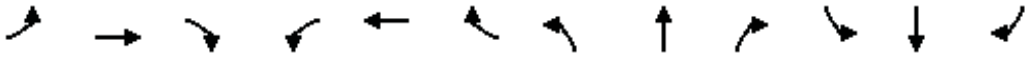
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	184	229	158	162	249	52	173	874	143	97	1035	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		87.0	0.0		0.0	62.0		0.0	60.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.939			0.974			0.979			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3297	0	1787	3492	0	1752	3398	0	1787	3428	0
Flt Permitted	0.374			0.270			0.082			0.161		
Satd. Flow (perm)	697	3297	0	508	3492	0	151	3398	0	303	3428	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		155			22			18			19	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		129.6			88.9			207.1			336.7	
Travel Time (s)		7.8			5.3			12.4			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	4%	1%	0%	4%	3%	4%	4%	1%	3%	3%
Adj. Flow (vph)	200	249	172	176	271	57	188	950	155	105	1125	189
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	421	0	176	328	0	188	1105	0	105	1314	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		9.0	10.0		9.0	10.0	
Minimum Split (s)	10.0	15.0		10.0	15.0		13.0	15.0		13.0	15.0	
Total Split (s)	16.0	31.0	0.0	16.0	31.0	0.0	20.0	39.0	0.0	20.0	39.0	0.0
Total Split (%)	15.1%	29.2%	0.0%	15.1%	29.2%	0.0%	18.9%	36.8%	0.0%	18.9%	36.8%	0.0%
Maximum Green (s)	12.0	26.0		12.0	26.0		16.0	34.0		16.0	34.0	
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		10.0			10.0			10.0			10.0	
Flash Dont Walk (s)		10.0			10.0			15.0			15.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	27.6	15.0		27.2	14.8		64.3	52.1		60.7	50.2	
Actuated g/C Ratio	0.26	0.14		0.26	0.14		0.61	0.49		0.57	0.47	
v/c Ratio	0.67	0.70		0.66	0.65		0.71	0.66		0.34	0.80	
Control Delay	40.8	33.4		40.7	46.0		47.9	11.0		7.9	26.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.8	33.4		40.7	46.0		47.9	11.0		7.9	26.0	
LOS	D	C		D	D		D	B		A	C	
Approach Delay		35.8			44.1			16.4			24.6	
Approach LOS		D			D			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 53 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 12: Division Rd & Walker Rd



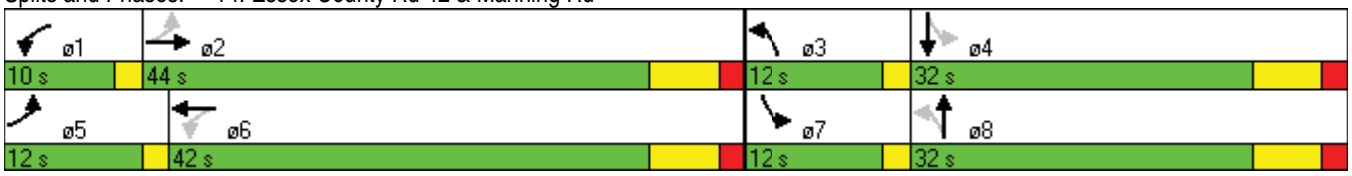


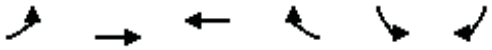
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	324	129	65	240	52	179	364	48	85	280	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	75.0		0.0	120.0		0.0	120.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.973			0.983			0.980	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1591	0	1671	1735	0	1612	1811	0	1556	1830	0
Flt Permitted	0.474			0.286			0.308			0.249		
Satd. Flow (perm)	892	1591	0	503	1735	0	522	1811	0	408	1830	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			12			6			7	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		281.2			1026.6			531.1			541.6	
Travel Time (s)		16.9			61.6			38.2			39.0	
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
Heavy Vehicles (%)	1%	16%	10%	8%	8%	0%	12%	3%	4%	16%	2%	0%
Adj. Flow (vph)	97	352	140	71	261	57	195	396	52	92	304	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	492	0	71	318	0	195	448	0	92	350	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	8.0	15.0		8.0	15.0		8.0	25.0		8.0	25.0	
Minimum Split (s)	10.0	27.0		10.0	27.0		10.0	32.0		10.0	32.0	
Total Split (s)	12.0	44.0	0.0	10.0	42.0	0.0	12.0	32.0	0.0	12.0	32.0	0.0
Total Split (%)	12.2%	44.9%	0.0%	10.2%	42.9%	0.0%	12.2%	32.7%	0.0%	12.2%	32.7%	0.0%
Maximum Green (s)	10.0	37.0		8.0	35.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	2.0	7.0	4.0	2.0	7.0	4.0	2.0	7.0	4.0	2.0	7.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Recall Mode	None	Max		None	Max		None	None		None	None	
Walk Time (s)		12.0			12.0			12.0			12.0	
Flash Dont Walk (s)		8.0			8.0			8.0			8.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	48.6	37.1		48.1	36.8		41.0	28.2		38.7	25.1	
Actuated g/C Ratio	0.51	0.39		0.50	0.38		0.43	0.29		0.40	0.26	
v/c Ratio	0.18	0.78		0.20	0.47		0.59	0.83		0.34	0.72	
Control Delay	12.4	35.5		12.8	24.9		26.2	48.4		20.7	42.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.4	35.5		12.8	24.9		26.2	48.4		20.7	42.0	
LOS	B	D		B	C		C	D		C	D	
Approach Delay		31.7			22.7			41.7			37.6	
Approach LOS		C			C			D			D	

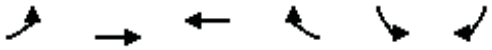
Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 95.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 34.4		Intersection LOS: C	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 14: Essex County Rd 42 & Manning Rd





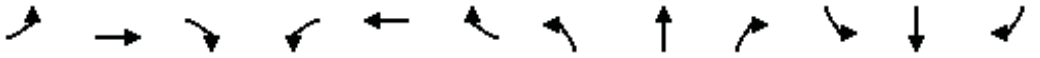
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	442	326	212	306	486	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0			0.0	0.0	100.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1792	1776	1509	1641	1538
Flt Permitted	0.494				0.950	
Satd. Flow (perm)	920	1792	1776	1509	1641	1538
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				333		259
Link Speed (k/h)		60	60		80	
Link Distance (m)		152.2	69.8		135.3	
Travel Time (s)		9.1	4.2		6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	6%	7%	7%	10%	5%
Adj. Flow (vph)	480	354	230	333	528	259
Shared Lane Traffic (%)						
Lane Group Flow (vph)	480	354	230	333	528	259
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	Left	Right	L NA	Right
Median Width(m)		3.6	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (m)	2.0	10.0	10.0	2.0	2.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	0.6	2.0	2.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt			Perm		Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	6.0	10.0	10.0	10.0	15.0	15.0
Minimum Split (s)	10.0	16.0	16.0	16.0	20.0	20.0
Total Split (s)	20.0	62.0	42.0	42.0	48.0	48.0
Total Split (%)	18.2%	56.4%	38.2%	38.2%	43.6%	43.6%
Maximum Green (s)	16.0	56.0	36.0	36.0	43.0	43.0
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	61.9	59.9	38.9	38.9	39.1	39.1
Actuated g/C Ratio	0.56	0.54	0.35	0.35	0.36	0.36
v/c Ratio	0.74	0.36	0.37	0.44	0.91	0.36
Control Delay	24.6	16.5	25.1	4.0	53.8	4.3
Queue Delay	0.0	0.1	3.5	1.0	0.0	0.0
Total Delay	24.6	16.5	28.6	5.0	53.8	4.3
LOS	C	B	C	A	D	A
Approach Delay		21.1	14.7		37.5	
Approach LOS		C	B		D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 33: Division Rd & Lauzon Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	58	149	43	66	244	94	637	36	53	512	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	90.0		110.0	230.0		0.0	170.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.892				0.850		0.992			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1566	0	1289	1792	1524	1612	3374	0	1570	3279	0
Flt Permitted	0.710			0.333			0.411			0.360		
Satd. Flow (perm)	1297	1566	0	452	1792	1524	697	3374	0	595	3279	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114				265		6			4	
Link Speed (k/h)		50			50			70			70	
Link Distance (m)		818.7			740.2			340.7			219.3	
Travel Time (s)		58.9			53.3			17.5			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	14%	6%	40%	6%	6%	12%	4%	44%	15%	9%	33%
Adj. Flow (vph)	79	63	162	47	72	265	102	692	39	58	557	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	225	0	47	72	265	102	731	0	58	573	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	8.0	12.0		8.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	12.0	18.0		12.0	18.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	16.0	46.0	0.0	30.0	60.0	0.0
Total Split (%)	28.3%	28.3%	0.0%	28.3%	28.3%	28.3%	15.1%	43.4%	0.0%	28.3%	56.6%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	12.0	40.0		26.0	54.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	16.8	16.8		16.8	16.8	16.8	77.3	68.6		76.0	66.0	
Actuated g/C Ratio	0.16	0.16		0.16	0.16	0.16	0.73	0.65		0.72	0.62	
v/c Ratio	0.39	0.66		0.66	0.25	0.57	0.18	0.33		0.12	0.28	
Control Delay	45.1	29.6		82.0	40.7	9.9	4.5	9.7		4.3	9.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	45.1	29.6		82.0	40.7	9.9	4.5	9.7		4.3	9.9	
LOS	D	C		F	D	A	A	A		A	A	
Approach Delay		33.6			24.5			9.0			9.4	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 106
Actuated Cycle Length: 106
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 15.4 Intersection LOS: B
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15

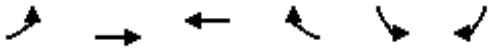
Splits and Phases: 34: S Service Rd & Lauzon Pkwy

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	566	246	13	389	129	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.955				0.974	
Flt Protected				0.998	0.961	
Satd. Flow (prot)	3184	0	0	3285	1750	0
Flt Permitted				0.919	0.961	
Satd. Flow (perm)	3184	0	0	3025	1750	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	148				10	
Link Speed (k/h)	60			60	60	
Link Distance (m)	69.8			38.3	1291.8	
Travel Time (s)	4.2			2.3	77.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	2%	0%	10%	2%	0%
Adj. Flow (vph)	615	267	14	423	140	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	0	0	437	173	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (m)	10.0		2.0	10.0	2.0	
Trailing Detector (m)	0.0		0.0	0.0	0.0	
Detector 1 Position(m)	0.0		0.0	0.0	0.0	
Detector 1 Size(m)	0.6		2.0	0.6	2.0	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phase	2		6	6	8	
Switch Phase						
Minimum Initial (s)	10.0		10.0	10.0	12.0	

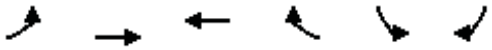
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	16.0		16.0	16.0	17.0	
Total Split (s)	83.0	0.0	83.0	83.0	27.0	0.0
Total Split (%)	75.5%	0.0%	75.5%	75.5%	24.5%	0.0%
Maximum Green (s)	77.0		77.0	77.0	22.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	5.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	83.0			83.0	16.0	
Actuated g/C Ratio	0.75			0.75	0.15	
v/c Ratio	0.36			0.19	0.66	
Control Delay	5.2			4.4	53.4	
Queue Delay	0.9			0.0	0.4	
Total Delay	6.1			4.4	53.8	
LOS	A			A	D	
Approach Delay	6.1			4.4	53.8	
Approach LOS	A			A	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 42 (38%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 35: Division Rd & Essex County Rd 17



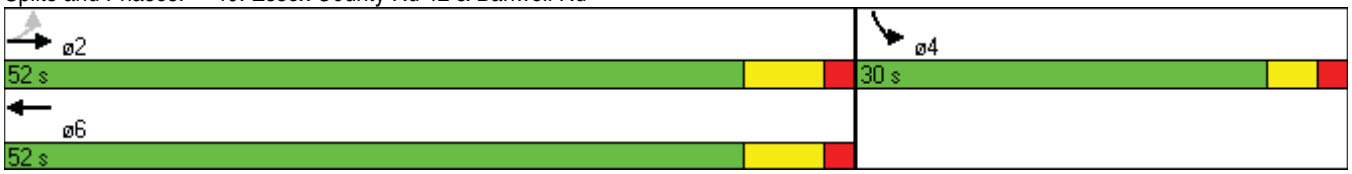
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	117	450	334	74	120	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	120.0			0.0	0.0	0.0
Storage Lanes	1			0	1	0
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.976		0.963	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1787	1667	1705	0	1722	0
Flt Permitted	0.490				0.965	
Satd. Flow (perm)	922	1667	1705	0	1722	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			21		24	
Link Speed (k/h)		60	60		60	
Link Distance (m)		799.7	1260.0		511.7	
Travel Time (s)		48.0	75.6		30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	14%	10%	3%	2%	4%
Adj. Flow (vph)	127	489	363	80	130	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	489	443	0	179	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru		Left	
Leading Detector (m)	2.0	10.0	10.0		2.0	
Trailing Detector (m)	0.0	0.0	0.0		0.0	
Detector 1 Position(m)	0.0	0.0	0.0		0.0	
Detector 1 Size(m)	2.0	0.6	0.6		2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm					
Protected Phases		2	6		4	
Permitted Phases	2					

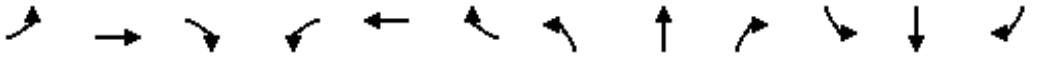


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	2	2	6		4	
Switch Phase						
Minimum Initial (s)	45.0	45.0	45.0		10.0	
Minimum Split (s)	52.0	52.0	52.0		15.0	
Total Split (s)	52.0	52.0	52.0	0.0	30.0	0.0
Total Split (%)	63.4%	63.4%	63.4%	0.0%	36.6%	0.0%
Maximum Green (s)	45.0	45.0	45.0		25.0	
Yellow Time (s)	5.0	5.0	5.0		3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	4.0	5.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	5.0	5.0	5.0		5.0	
Recall Mode	Min	Min	Min		None	
Act Effct Green (s)	45.1	45.1	45.1		13.7	
Actuated g/C Ratio	0.64	0.64	0.64		0.19	
v/c Ratio	0.22	0.46	0.41		0.51	
Control Delay	7.3	9.0	7.9		27.1	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	7.3	9.0	7.9		27.1	
LOS	A	A	A		C	
Approach Delay		8.6	7.9		27.1	
Approach LOS		A	A		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 70.8			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 100.2%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 40: Essex County Rd 42 & Banwell Rd



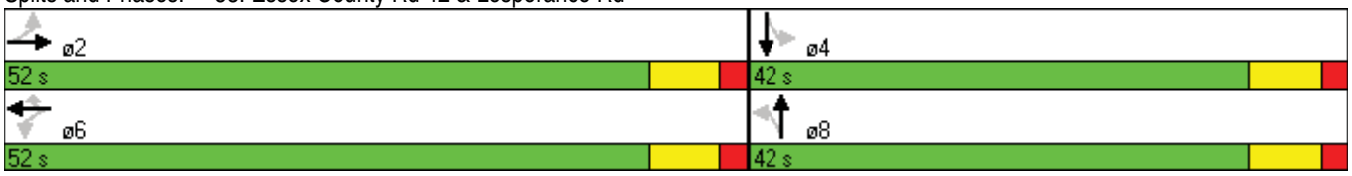


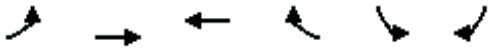
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	495	19	18	372	75	6	21	18	51	12	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		0.0	70.0		45.0	50.0		0.0	50.0		0.0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994				0.850		0.930			0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1679	0	1805	1743	1568	1805	1767	0	1805	1659	0
Flt Permitted	0.525			0.424			0.727			0.729		
Satd. Flow (perm)	998	1679	0	806	1743	1568	1381	1767	0	1385	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				82		20			33	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		1260.0			310.5			369.5			433.8	
Travel Time (s)		75.6			18.6			26.6			31.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	13%	0%	0%	9%	3%	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	61	538	21	20	404	82	7	23	20	55	13	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	559	0	20	404	82	7	43	0	55	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	45.0	45.0		45.0	45.0	45.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	52.0	52.0		52.0	52.0	52.0	17.0	17.0		17.0	17.0	
Total Split (s)	52.0	52.0	0.0	52.0	52.0	52.0	42.0	42.0	0.0	42.0	42.0	0.0
Total Split (%)	55.3%	55.3%	0.0%	55.3%	55.3%	55.3%	44.7%	44.7%	0.0%	44.7%	44.7%	0.0%
Maximum Green (s)	45.0	45.0		45.0	45.0	45.0	35.0	35.0		35.0	35.0	
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	4.0	7.0	7.0	7.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	
Walk Time (s)	15.0	15.0		15.0	15.0	15.0	12.0	12.0		12.0	12.0	
Flash Dont Walk (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)	49.6	49.6		49.6	49.6	49.6	10.8	10.8		10.8	10.8	
Actuated g/C Ratio	0.71	0.71		0.71	0.71	0.71	0.16	0.16		0.16	0.16	
v/c Ratio	0.09	0.47		0.03	0.32	0.07	0.03	0.15		0.25	0.16	
Control Delay	5.4	7.8		5.1	6.3	1.6	25.2	17.9		29.1	14.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.4	7.8		5.1	6.3	1.6	25.2	17.9		29.1	14.2	
LOS	A	A		A	A	A	C	B		C	B	
Approach Delay		7.6			5.5			18.9			22.3	
Approach LOS		A			A			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 69.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 100.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 53: Essex County Rd 42 & Lesperance Rd



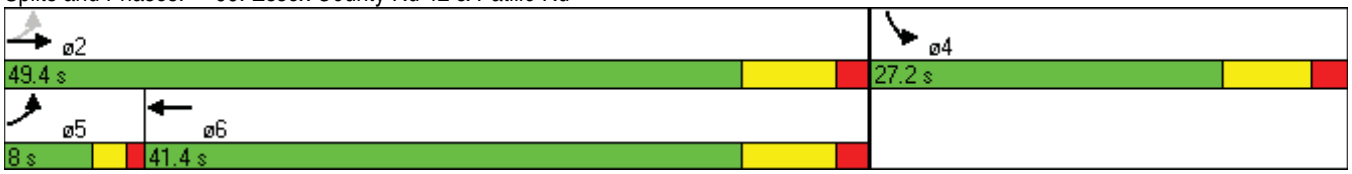


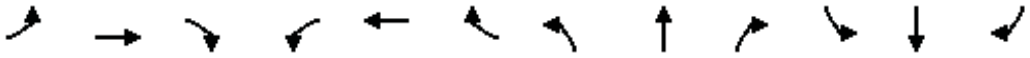
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	47	409	250	67	149	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	125.0			0.0	0.0	0.0
Storage Lanes	1			0	1	0
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.971		0.945	
Flt Protected	0.950				0.971	
Satd. Flow (prot)	1703	1681	1694	0	1561	0
Flt Permitted	0.495				0.971	
Satd. Flow (perm)	887	1681	1694	0	1561	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			23		44	
Link Speed (k/h)		50	60		60	
Link Distance (m)		2078.8	1623.5		591.4	
Travel Time (s)		149.7	97.4		35.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	13%	7%	16%	15%	7%
Adj. Flow (vph)	51	445	272	73	162	113
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	445	345	0	275	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru		Left	
Leading Detector (m)	2.0	10.0	10.0		2.0	
Trailing Detector (m)	0.0	0.0	0.0		0.0	
Detector 1 Position(m)	0.0	0.0	0.0		0.0	
Detector 1 Size(m)	2.0	0.6	0.6		2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt					
Protected Phases	5	2	6		4	
Permitted Phases	2					

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	5	2	6		4	
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		10.0	
Minimum Split (s)	8.0	17.4	17.4		17.2	
Total Split (s)	8.0	49.4	41.4	0.0	27.2	0.0
Total Split (%)	10.4%	64.5%	54.0%	0.0%	35.5%	0.0%
Maximum Green (s)	5.0	42.0	34.0		20.0	
Yellow Time (s)	2.0	5.4	5.4		5.0	
All-Red Time (s)	1.0	2.0	2.0		2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	4.0	7.2	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	4.0	4.0		4.0	
Recall Mode	None	Max	Max		None	
Act Effct Green (s)	46.5	42.1	37.5		16.1	
Actuated g/C Ratio	0.64	0.58	0.52		0.22	
v/c Ratio	0.08	0.46	0.39		0.73	
Control Delay	6.2	11.5	13.5		33.6	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	6.2	11.5	13.5		33.6	
LOS	A	B	B		C	
Approach Delay		10.9	13.5		33.6	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 76.6			
Actuated Cycle Length: 72.8			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 17.3		Intersection LOS: B	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 66: Essex County Rd 42 & Patillo Rd



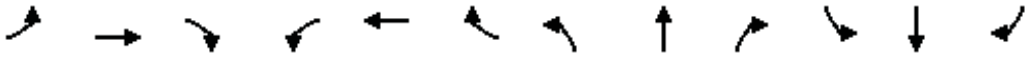


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	316	70	25	140	8	23	81	64	6	40	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.994			0.948			0.957	
Flt Protected		0.996			0.993			0.993			0.995	
Satd. Flow (prot)	0	1554	0	0	1765	0	0	1717	0	0	1809	0
Flt Permitted		0.963			0.908			0.949			0.963	
Satd. Flow (perm)	0	1503	0	0	1614	0	0	1641	0	0	1751	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5			45			23	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		1281.7			845.0			536.2			483.9	
Travel Time (s)		57.7			38.0			24.1			21.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	13%	56%	4%	7%	0%	22%	0%	3%	0%	0%	0%
Adj. Flow (vph)	38	343	76	27	152	9	25	88	70	7	43	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	188	0	0	183	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	36.0	36.0		36.0	36.0		17.0	17.0		17.0	17.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	43.0	43.0		43.0	43.0		24.0	24.0		24.0	24.0	
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	57.3%	57.3%	0.0%	57.3%	57.3%	0.0%	42.7%	42.7%	0.0%	42.7%	42.7%	0.0%
Maximum Green (s)	36.0	36.0		36.0	36.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)		36.0			36.0			17.1			17.1	
Actuated g/C Ratio		0.54			0.54			0.25			0.25	
v/c Ratio		0.56			0.22			0.40			0.16	
Control Delay		13.2			8.8			18.7			15.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			8.8			18.7			15.5	
LOS		B			A			B			B	
Approach Delay		13.2			8.8			18.7			15.5	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 67.1			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 55.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 68: Essex County Rd 42 & Puce Rd

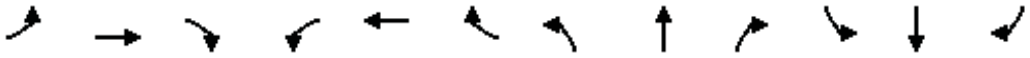


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	117	57	429	67	73	88	1019	526	124	794	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	290.0		0.0	70.0		0.0	190.0		0.0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.951				0.850			0.850		0.999	
Flt Protected	0.950			0.950	0.965		0.950			0.950		
Satd. Flow (prot)	1805	1771	0	1665	1700	1568	1770	5036	1599	1687	4983	0
Flt Permitted	0.238			0.950	0.965		0.272			0.149		
Satd. Flow (perm)	452	1771	0	1665	1700	1568	507	5036	1599	265	4983	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				79			572		1	
Link Speed (k/h)		50			50			70			70	
Link Distance (m)		644.4			654.7			295.7			652.7	
Travel Time (s)		46.4			47.1			15.2			33.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	3%	1%	3%	2%	3%	1%	7%	4%	0%
Adj. Flow (vph)	3	127	62	466	73	79	96	1108	572	135	863	4
Shared Lane Traffic (%)				43%								
Lane Group Flow (vph)	3	189	0	266	273	79	96	1108	572	135	867	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Split		Perm	pm+pt		Perm	pm+pt		
Protected Phases		4		8	8		5	2		1	6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	16.0	16.0		11.0	11.0	11.0	6.0	16.0	16.0	6.0	16.0	
Minimum Split (s)	21.0	21.0		16.0	16.0	16.0	10.0	22.0	22.0	10.0	22.0	
Total Split (s)	23.0	23.0	0.0	28.0	28.0	28.0	17.0	38.0	38.0	17.0	38.0	0.0
Total Split (%)	21.7%	21.7%	0.0%	26.4%	26.4%	26.4%	16.0%	35.8%	35.8%	16.0%	35.8%	0.0%
Maximum Green (s)	18.0	18.0		23.0	23.0	23.0	13.0	32.0	32.0	13.0	32.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	4.0	6.0	6.0	4.0	6.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	16.0	16.0						16.0	16.0		16.0	
Flash Dont Walk (s)	22.0	22.0						14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	16.8	16.8		20.6	20.6	20.6	49.2	38.6	38.6	52.7	42.1	
Actuated g/C Ratio	0.16	0.16		0.19	0.19	0.19	0.46	0.36	0.36	0.50	0.40	
v/c Ratio	0.04	0.64		0.82	0.83	0.21	0.28	0.60	0.60	0.51	0.44	
Control Delay	39.0	47.6		61.6	61.7	9.3	15.7	29.5	6.3	21.6	25.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.0	47.6		61.6	61.7	9.3	15.7	29.5	6.3	21.6	25.9	
LOS	D	D		E	E	A	B	C	A	C	C	
Approach Delay		47.5			54.9			21.3			25.3	
Approach LOS		D			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 46 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 29.6		Intersection LOS: C	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 84: EC Row Ave & Lauzon Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	0	74	0	0	9	80	1113	0	0	1228	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		85.0	0.0		0.0	55.0		0.0	80.0		100.0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.865					0.986	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	0	1615	0	0	1644	1805	3471	0	0	3465	0
Flt Permitted	0.950						0.122					
Satd. Flow (perm)	1805	0	1615	0	0	1644	232	3471	0	0	3465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			80			86					13	
Link Speed (k/h)		50			50			60			50	
Link Distance (m)		218.9			87.5			326.2			207.1	
Travel Time (s)		15.8			6.3			19.6			14.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%
Adj. Flow (vph)	74	0	80	0	0	10	87	1210	0	0	1335	138
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	0	80	0	0	10	87	1210	0	0	1473	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1		1			1	1	2			2	
Detector Template	Left		Right			Right	Left	Thru			Thru	
Leading Detector (m)	2.0		2.0			2.0	2.0	10.0			10.0	
Trailing Detector (m)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Position(m)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Size(m)	2.0		2.0			2.0	2.0	0.6			0.6	
Detector 1 Type	Cl+Ex		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0		0.0			0.0	0.0	0.0			0.0	
Detector 2 Position(m)								9.4			9.4	
Detector 2 Size(m)								0.6			0.6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	custom		custom			custom	pm+pt					
Protected Phases							5	2			6	
Permitted Phases	4		4			8	2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4		4			8	5	2			6	
Switch Phase												
Minimum Initial (s)	14.0		14.0			14.0	10.0	12.0			12.0	
Minimum Split (s)	19.0		19.0			19.0	14.0	17.0			17.0	
Total Split (s)	34.0	0.0	34.0	0.0	0.0	34.0	20.0	72.0	0.0	0.0	52.0	0.0
Total Split (%)	32.1%	0.0%	32.1%	0.0%	0.0%	32.1%	18.9%	67.9%	0.0%	0.0%	49.1%	0.0%
Maximum Green (s)	29.0		29.0			29.0	16.0	67.0			47.0	
Yellow Time (s)	4.0		4.0			4.0	3.0	4.0			4.0	
All-Red Time (s)	1.0		1.0			1.0	1.0	1.0			1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	5.0	4.0
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0			3.0	3.0	3.0			3.0	
Recall Mode	None		None			None	None	C-Max			C-Max	
Walk Time (s)	14.0		14.0					12.0			12.0	
Flash Dont Walk (s)	10.0		10.0					12.0			12.0	
Pedestrian Calls (#/hr)	0		0					0			0	
Act Effct Green (s)	14.0		14.0			14.0	86.8	86.8			75.6	
Actuated g/C Ratio	0.13		0.13			0.13	0.82	0.82			0.71	
v/c Ratio	0.31		0.28			0.03	0.26	0.43			0.60	
Control Delay	45.6		12.2			0.2	4.3	1.8			5.7	
Queue Delay	0.0		0.0			0.0	0.0	0.0			0.2	
Total Delay	45.6		12.2			0.2	4.3	1.8			5.9	
LOS	D		B			A	A	A			A	
Approach Delay								2.0			5.9	
Approach LOS								A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 74 (70%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 5.3		Intersection LOS: A	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

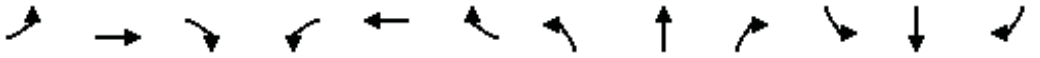
Splits and Phases: 100: Home Depot Entrance & Walker Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	11	52	21	3	2	48	1172	14	17	1255	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		40.0	25.0		0.0	110.0		0.0	75.0		70.0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.940			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1900	1553	1805	1786	0	1805	3499	0	1703	3505	1615
Flt Permitted	0.754			0.750			0.153			0.215		
Satd. Flow (perm)	1377	1900	1553	1425	1786	0	291	3499	0	385	3505	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57		2			2				28
Link Speed (k/h)		50			50			60			50	
Link Distance (m)		272.7			192.5			158.7			297.2	
Travel Time (s)		19.6			13.9			9.5			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	0%	3%	0%	6%	3%	0%
Adj. Flow (vph)	49	12	57	23	3	2	52	1274	15	18	1364	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	12	57	23	5	0	52	1289	0	18	1364	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm		Perm	Perm			pm+pt			Perm		Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	12.0	12.0		7.0	12.0		12.0	12.0	12.0
Minimum Split (s)	17.0	17.0	17.0	17.0	17.0		11.0	17.0		17.0	17.0	17.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	12.0	76.0	0.0	64.0	64.0	64.0
Total Split (%)	28.3%	28.3%	28.3%	28.3%	28.3%	0.0%	11.3%	71.7%	0.0%	60.4%	60.4%	60.4%
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		8.0	71.0		59.0	59.0	59.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	12.0	12.0	12.0	12.0	12.0			12.0		12.0	12.0	12.0
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	9.0			12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	0
Act Effct Green (s)	12.2	12.2	12.2	12.2	12.2		88.2	88.2		79.4	79.4	79.4
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12		0.83	0.83		0.75	0.75	0.75
v/c Ratio	0.31	0.05	0.25	0.14	0.02		0.15	0.44		0.06	0.52	0.02
Control Delay	48.6	42.3	14.3	44.3	35.2		1.1	0.7		1.5	3.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	48.6	42.3	14.3	44.3	35.2		1.1	0.7		1.5	3.1	0.5
LOS	D	D	B	D	D		A	A		A	A	A
Approach Delay		31.4			42.7			0.7			3.0	
Approach LOS		C			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 26 (25%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 3.5		Intersection LOS: A	
Intersection Capacity Utilization 67.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 103: Best Buy Entrance & Walker Rd

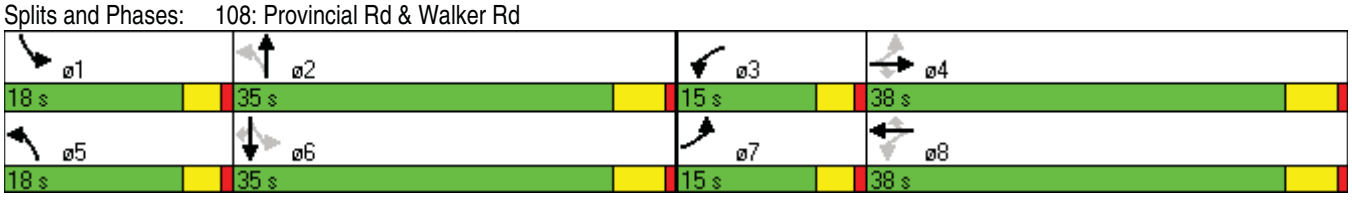


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	196	141	58	140	151	121	1075	120	268	1084	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	55.0		70.0	88.0		100.0	107.0		0.0	140.0		48.0
Storage Lanes	1		2	1		1	1		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.985				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3438	1455	1433	3282	1482	1687	3446	0	1719	3539	1615
Flt Permitted	0.656			0.470			0.193			0.081		
Satd. Flow (perm)	1246	3438	1455	709	3282	1482	343	3446	0	147	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			153			164		11				19
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		500.9			344.9			669.0			392.3	
Travel Time (s)		36.1			24.8			48.2			28.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	5%	11%	26%	10%	9%	7%	2%	14%	5%	2%	0%
Adj. Flow (vph)	39	213	153	63	152	164	132	1168	130	291	1178	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	213	153	63	152	164	132	1298	0	291	1178	36
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	12.0	12.0	8.0	12.0	12.0	8.0	15.0		8.0	15.0	15.0
Minimum Split (s)	12.0	17.0	17.0	12.0	17.0	17.0	12.0	20.0		12.0	20.0	20.0
Total Split (s)	15.0	38.0	38.0	15.0	38.0	38.0	18.0	35.0	0.0	18.0	35.0	35.0
Total Split (%)	14.2%	35.8%	35.8%	14.2%	35.8%	35.8%	17.0%	33.0%	0.0%	17.0%	33.0%	33.0%
Maximum Green (s)	11.0	33.0	33.0	11.0	33.0	33.0	14.0	30.0		14.0	30.0	30.0
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	4.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		12.0	12.0		12.0	12.0		15.0			15.0	15.0
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	20.6	12.9	12.9	23.6	16.4	16.4	57.3	46.8		73.1	58.7	58.7
Actuated g/C Ratio	0.19	0.12	0.12	0.22	0.15	0.15	0.54	0.44		0.69	0.55	0.55
v/c Ratio	0.14	0.51	0.49	0.28	0.30	0.45	0.43	0.85		0.70	0.60	0.04
Control Delay	30.1	47.9	12.5	33.3	41.4	10.4	13.6	34.9		42.6	9.4	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	30.1	47.9	12.5	33.3	41.4	10.4	13.6	34.9		42.6	9.4	3.1
LOS	C	D	B	C	D	B	B	C		D	A	A
Approach Delay		32.8			26.6			32.9			15.7	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 106			
Offset: 45 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 80.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 108: Provincial Rd & Walker Rd



1: Airport Rd & Walker Rd Performance by movement

Movement	EBL	WBL	WBR	NBT	NBR	SBL	SBT	All
Total Delay (hr)	0.0	0.2	0.1	0.5	0.0	0.0	0.9	1.7
Delay / Veh (s)	32.4	60.1	13.2	1.8	1.6	12.0	2.5	2.6
Total Stops	1	9	23	42	1	8	86	170
Travel Dist (km)	0.1	4.7	11.8	174.3	1.3	3.5	457.8	653.6
Travel Time (hr)	0.0	0.3	0.3	3.5	0.0	0.1	8.8	13.1
Avg Speed (kph)	11	18	34	50	39	33	52	50
Fuel Used (l)	0.0	0.5	0.9	12.6	0.1	0.4	40.2	54.6
HC Emissions (g)	0	6	8	60	1	18	152	244
CO Emissions (g)	0	104	150	1477	16	319	6195	8262
NOx Emissions (g)	0	15	21	197	3	44	496	774
Vehicles Entered	1	10	24	1099	8	10	1290	2442
Vehicles Exited	1	10	24	1098	8	10	1289	2440
Hourly Exit Rate	1	10	24	1098	8	10	1289	2440
Input Volume	1	10	25	1102	10	10	1286	2444
% of Volume	100	100	96	100	80	100	100	100
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: Legacy Park Dr & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	1.8	0.9	0.5	1.0	0.3	0.1	0.5	5.2	0.7	0.1	5.0	0.4
Delay / Veh (s)	44.5	39.8	22.6	43.7	36.9	14.3	24.6	17.7	18.3	26.7	14.6	13.8
Total Stops	137	64	72	76	22	12	67	569	80	10	505	50
Travel Dist (km)	32.2	17.0	18.9	4.2	1.5	0.8	30.2	409.5	54.4	2.4	208.7	18.3
Travel Time (hr)	2.5	1.2	1.0	1.1	0.3	0.1	1.2	13.7	2.0	0.2	9.3	0.9
Avg Speed (kph)	13	14	19	4	4	8	26	30	28	15	23	21
Fuel Used (l)	3.6	1.8	1.6	1.4	0.4	0.2	2.8	38.3	4.9	0.2	18.0	1.4
HC Emissions (g)	7	2	2	1	0	0	7	167	27	0	67	1
CO Emissions (g)	212	81	94	44	18	6	229	4006	588	7	1392	41
NOx Emissions (g)	20	6	7	5	2	1	25	538	81	1	196	5
Vehicles Entered	145	77	85	80	28	15	77	1061	140	14	1243	107
Vehicles Exited	145	77	85	79	28	15	77	1061	141	14	1245	107
Hourly Exit Rate	145	77	85	79	28	15	77	1061	141	14	1245	107
Input Volume	151	78	82	84	31	15	80	1071	137	18	1241	111
% of Volume	96	99	104	94	90	100	96	99	103	78	100	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Legacy Park Dr & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	16.5
Delay / Veh (s)	19.3
Total Stops	1664
Travel Dist (km)	798.1
Travel Time (hr)	33.4
Avg Speed (kph)	24
Fuel Used (l)	74.6
HC Emissions (g)	281
CO Emissions (g)	6719
NOx Emissions (g)	886
Vehicles Entered	3072
Vehicles Exited	3074
Hourly Exit Rate	3074
Input Volume	3099
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

5: Moxlay Ave & Walker Rd Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.1	0.0	0.0	0.1	1.1	0.0	0.0	0.5	0.0	1.9
Delay / Veh (s)	34.8	10.9	34.7	9.2	14.5	3.6	3.1	11.5	1.4	2.3	2.8
Total Stops	6	34	2	7	18	22	0	4	5	0	98
Travel Dist (km)	1.6	9.2	0.1	0.6	8.0	367.6	1.4	0.8	206.9	3.0	599.3
Travel Time (hr)	0.1	0.3	0.0	0.0	0.2	7.5	0.0	0.0	4.0	0.1	12.4
Avg Speed (kph)	17	29	5	16	32	49	44	25	52	38	48
Fuel Used (l)	0.1	0.7	0.0	0.1	0.7	35.6	0.1	0.1	15.3	0.2	52.8
HC Emissions (g)	0	4	0	0	4	214	0	0	65	5	293
CO Emissions (g)	8	91	2	7	112	6116	12	10	1732	95	8184
NOx Emissions (g)	0	10	0	0	11	684	1	1	217	13	939
Vehicles Entered	6	34	2	7	23	1088	4	5	1291	20	2480
Vehicles Exited	6	34	2	7	23	1089	4	5	1291	20	2481
Hourly Exit Rate	6	34	2	7	23	1089	4	5	1291	20	2481
Input Volume	6	34	2	6	26	1094	4	6	1288	20	2486
% of Volume	100	100	100	117	88	100	100	83	100	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

12: Division Rd & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	2.5	2.8	0.6	1.9	2.7	0.4	2.1	5.5	0.9	1.2	15.3	2.7
Delay / Veh (s)	49.2	42.7	13.3	44.6	37.4	24.2	44.2	23.0	22.4	44.8	53.2	55.8
Total Stops	206	198	124	167	199	43	174	407	81	136	1089	205
Travel Dist (km)	22.3	29.3	19.8	12.7	20.8	4.3	35.3	178.6	29.2	31.2	339.6	58.0
Travel Time (hr)	3.0	3.3	1.1	2.3	3.1	0.5	2.8	8.6	1.5	1.8	21.1	3.9
Avg Speed (kph)	7	9	18	6	7	9	12	21	19	18	16	15
Fuel Used (l)	3.4	4.1	1.6	2.5	3.9	0.6	4.0	17.3	2.4	2.8	33.5	5.6
HC Emissions (g)	6	6	5	2	5	1	9	67	10	4	101	14
CO Emissions (g)	169	197	160	78	209	34	285	1937	237	144	2481	349
NOx Emissions (g)	16	19	14	8	21	3	29	200	28	16	303	41
Vehicles Entered	182	236	159	155	259	52	172	867	142	96	1040	178
Vehicles Exited	182	237	159	156	261	53	172	868	142	95	1033	177
Hourly Exit Rate	182	237	159	156	261	53	172	868	142	95	1033	177
Input Volume	184	229	158	162	261	52	173	875	143	97	1038	174
% of Volume	99	103	101	96	100	102	99	99	99	98	100	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

12: Division Rd & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	38.6
Delay / Veh (s)	39.3
Total Stops	3029
Travel Dist (km)	781.2
Travel Time (hr)	53.1
Avg Speed (kph)	15
Fuel Used (l)	81.9
HC Emissions (g)	232
CO Emissions (g)	6280
NOx Emissions (g)	698
Vehicles Entered	3538
Vehicles Exited	3535
Hourly Exit Rate	3535
Input Volume	3546
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

14: Essex County Rd 42 & Manning Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.6	3.2	1.0	0.5	1.7	0.3	2.0	4.5	0.5	0.6	3.4	0.4
Delay / Veh (s)	25.7	30.2	26.5	27.9	23.8	18.5	39.2	45.7	37.0	27.4	42.8	33.3
Total Stops	74	251	106	59	140	30	193	340	45	76	260	39
Travel Dist (km)	23.4	94.2	35.7	66.6	249.8	51.2	94.8	185.7	24.2	45.1	152.2	22.4
Travel Time (hr)	1.1	4.9	1.7	1.7	5.9	1.2	4.0	8.3	1.0	1.6	6.5	0.9
Avg Speed (kph)	22	20	21	39	42	44	24	22	24	28	23	26
Fuel Used (l)	1.8	8.0	2.8	4.9	17.9	3.4	8.6	17.1	2.1	3.8	13.9	2.0
HC Emissions (g)	2	87	18	31	99	4	81	53	10	46	39	2
CO Emissions (g)	88	1505	332	644	2114	158	1581	1319	218	888	1043	98
NOx Emissions (g)	9	203	44	90	298	19	208	155	27	119	115	9
Vehicles Entered	85	388	134	67	260	50	180	351	46	85	285	42
Vehicles Exited	84	387	133	67	258	49	180	354	46	83	285	42
Hourly Exit Rate	84	387	133	67	258	49	180	354	46	83	285	42
Input Volume	89	379	129	65	257	52	179	364	48	85	280	42
% of Volume	94	102	103	103	100	94	101	97	96	98	102	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

14: Essex County Rd 42 & Manning Rd Performance by movement

Movement	All
Total Delay (hr)	18.6
Delay / Veh (s)	34.1
Total Stops	1613
Travel Dist (km)	1045.3
Travel Time (hr)	38.7
Avg Speed (kph)	27
Fuel Used (l)	86.3
HC Emissions (g)	474
CO Emissions (g)	9988
NOx Emissions (g)	1296
Vehicles Entered	1973
Vehicles Exited	1968
Hourly Exit Rate	1968
Input Volume	1969
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

19: Division Rd & Riberdy Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.3	0.1	0.0	0.2	0.1	0.8
Delay / Veh (s)	5.4	2.8	0.8	0.1	14.2	5.6	2.8
Total Stops	18	21	1	0	40	80	160
Travel Dist (km)	3.8	38.0	16.0	1.3	11.5	23.1	93.7
Travel Time (hr)	0.2	1.2	0.4	0.0	0.4	0.7	2.9
Avg Speed (kph)	21	31	45	27	28	34	32
Fuel Used (l)	0.5	7.3	0.9	0.0	1.1	2.1	11.8
HC Emissions (g)	2	36	4	0	2	6	50
CO Emissions (g)	54	1413	130	2	117	253	1969
NOx Emissions (g)	7	124	11	0	8	19	170
Vehicles Entered	44	443	375	31	40	81	1014
Vehicles Exited	44	443	375	31	40	80	1013
Hourly Exit Rate	44	443	375	31	40	80	1013
Input Volume	45	435	383	31	41	80	1015
% of Volume	98	102	98	100	98	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

23: Division Rd & Baseline Rd Performance by movement

Movement	EBT	EBR	WBT	All
Total Delay (hr)	0.2	0.0	0.1	0.4
Delay / Veh (s)	2.1	1.3	1.0	1.5
Total Stops	0	0	0	0
Travel Dist (km)	149.8	24.6	47.3	221.7
Travel Time (hr)	2.8	0.5	0.9	4.2
Avg Speed (kph)	54	49	51	53
Fuel Used (l)	10.1	1.4	5.0	16.5
HC Emissions (g)	59	2	28	88
CO Emissions (g)	1284	75	912	2270
NOx Emissions (g)	184	8	86	278
Vehicles Entered	415	68	395	878
Vehicles Exited	416	68	394	878
Hourly Exit Rate	416	68	394	878
Input Volume	408	67	399	874
% of Volume	102	101	99	100
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

26: Division Rd & Concession Rd 7 Performance by movement

Movement	EBT	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.1	0.2	0.1	0.3	0.8
Delay / Veh (s)	1.1	4.0	2.3	12.7	6.4	2.8
Total Stops	0	23	15	30	143	211
Travel Dist (km)	47.5	7.3	38.4	11.5	55.7	160.4
Travel Time (hr)	0.9	0.3	0.9	0.3	1.5	4.0
Avg Speed (kph)	52	29	41	33	37	40
Fuel Used (l)	3.9	0.5	3.2	0.8	3.7	12.1
HC Emissions (g)	14	1	16	2	15	47
CO Emissions (g)	459	23	414	54	325	1275
NOx Emissions (g)	51	3	50	6	40	150
Vehicles Entered	404	70	369	30	143	1016
Vehicles Exited	405	70	368	30	144	1017
Hourly Exit Rate	405	70	368	30	144	1017
Input Volume	398	74	371	30	142	1015
% of Volume	102	95	99	100	101	100
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

28: Division Rd & Airport In Entrance Performance by movement

Movement	EBL	EBT	WBT	WBR	All
Total Delay (hr)	0.0	0.1	0.4	0.0	0.5
Delay / Veh (s)	3.1	0.4	4.0	4.3	2.0
Total Stops	10	0	0	0	10
Travel Dist (km)	4.4	71.0	266.0	7.1	348.6
Travel Time (hr)	0.1	1.3	4.9	0.1	6.5
Avg Speed (kph)	35	56	54	50	54
Fuel Used (l)	0.2	4.8	17.5	0.5	23.0
HC Emissions (g)	1	22	59	1	83
CO Emissions (g)	28	505	1137	11	1680
NOx Emissions (g)	3	72	195	2	272
Vehicles Entered	33	528	392	10	963
Vehicles Exited	33	527	393	10	963
Hourly Exit Rate	33	527	393	10	963
Input Volume	35	519	399	9	962
% of Volume	94	102	98	111	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

29: Division Rd & Airport Out Entrance Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Total Delay (hr)	0.1	0.1	0.0	0.1	0.3
Delay / Veh (s)	0.5	1.0	10.4	4.2	1.0
Total Stops	0	0	10	48	58
Travel Dist (km)	57.1	51.3	1.5	7.0	117.0
Travel Time (hr)	1.2	1.0	0.1	0.2	2.5
Avg Speed (kph)	47	53	24	30	47
Fuel Used (l)	6.5	3.1	0.1	0.5	10.2
HC Emissions (g)	29	10	0	3	43
CO Emissions (g)	1094	175	8	87	1364
NOx Emissions (g)	98	33	0	9	140
Vehicles Entered	548	389	10	47	994
Vehicles Exited	548	390	10	48	996
Hourly Exit Rate	548	390	10	48	996
Input Volume	540	395	12	48	995
% of Volume	101	99	83	100	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

31: Division Rd & Concession Rd 8 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.5	0.0	0.1	1.2	0.1	0.1	1.9
Delay / Veh (s)	2.9	2.8	13.3	10.4	12.5	6.0	6.3
Total Stops	0	0	12	12	22	48	94
Travel Dist (km)	297.1	4.9	40.0	676.2	11.6	25.4	1055.2
Travel Time (hr)	5.6	0.1	0.8	12.6	0.3	0.6	20.0
Avg Speed (kph)	53	49	51	54	36	40	53
Fuel Used (l)	20.2	0.3	2.5	42.7	0.9	1.8	68.4
HC Emissions (g)	75	4	14	124	1	10	228
CO Emissions (g)	1607	69	233	1979	43	218	4149
NOx Emissions (g)	243	11	45	409	4	28	740
Vehicles Entered	596	10	25	420	22	47	1120
Vehicles Exited	595	10	25	420	22	47	1119
Hourly Exit Rate	595	10	25	420	22	47	1119
Input Volume	589	10	27	420	22	47	1115
% of Volume	101	100	93	100	100	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

36: North Talbot Rd & Essex County Rd 17 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.3	0.0	0.0	1.3	0.0	0.2	1.9
Delay / Veh (s)	4.5	2.5	1.1	0.8	31.1	3.4	23.6	7.8
Total Stops	11	6	0	0	149	0	35	201
Travel Dist (km)	28.5	268.2	85.7	32.1	571.0	5.3	133.7	1124.5
Travel Time (hr)	0.7	5.8	1.8	0.7	11.0	0.1	2.5	22.5
Avg Speed (kph)	43	47	48	45	52	57	53	50
Fuel Used (l)	2.1	20.0	6.2	2.2	35.5	0.4	8.3	74.7
HC Emissions (g)	5	101	26	3	89	26	68	318
CO Emissions (g)	131	2141	586	103	1571	418	1111	6060
NOx Emissions (g)	15	290	75	9	321	77	216	1003
Vehicles Entered	48	445	154	57	150	3	35	892
Vehicles Exited	48	445	154	58	148	3	35	891
Hourly Exit Rate	48	445	154	58	148	3	35	891
Input Volume	49	448	160	58	147	2	34	898
% of Volume	98	99	96	100	101	150	103	99
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

40: Essex County Rd 42 & Banwell Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.5	1.3	1.2	0.2	1.2	0.2	4.7
Delay / Veh (s)	15.7	9.0	12.8	9.6	36.7	19.9	13.9
Total Stops	72	104	89	23	107	38	433
Travel Dist (km)	93.1	363.8	426.3	93.0	61.9	21.7	1059.8
Travel Time (hr)	2.1	7.5	8.4	1.8	2.4	0.7	22.9
Avg Speed (kph)	43	49	51	51	26	33	46
Fuel Used (l)	6.0	24.9	28.8	5.9	5.8	1.9	73.3
HC Emissions (g)	7	254	230	22	16	15	543
CO Emissions (g)	207	4553	4113	446	687	399	10405
NOx Emissions (g)	31	712	709	76	51	40	1618
Vehicles Entered	117	506	340	74	121	43	1201
Vehicles Exited	116	507	340	74	123	43	1203
Hourly Exit Rate	116	507	340	74	123	43	1203
Input Volume	117	503	335	74	120	45	1194
% of Volume	99	101	101	100	102	96	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

47: Baseline Rd & Essex County Rd 17 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.2	0.0
Delay / Veh (s)	6.2	9.4	2.2	4.5	9.3	1.7	1.1	7.3	4.6	4.7	4.0	3.7
Total Stops	3	36	3	4	6	31	0	0	0	10	1	0
Travel Dist (km)	2.0	21.1	1.9	2.3	3.6	19.5	2.9	438.9	12.8	115.7	227.4	3.4
Travel Time (hr)	0.0	0.4	0.0	0.0	0.1	0.3	0.1	7.8	0.2	2.2	4.3	0.1
Avg Speed (kph)	57	56	61	58	57	63	53	56	54	51	53	52
Fuel Used (l)	0.2	1.8	0.2	0.2	0.3	1.7	0.2	28.8	0.8	8.4	16.9	0.2
HC Emissions (g)	0	5	0	6	1	4	0	67	1	13	82	0
CO Emissions (g)	36	364	35	125	55	306	7	1596	32	565	2077	16
NOx Emissions (g)	2	18	2	14	3	17	1	261	5	56	267	2
Vehicles Entered	4	36	3	4	6	31	1	126	4	91	179	3
Vehicles Exited	3	36	3	4	6	31	1	128	4	91	179	3
Hourly Exit Rate	3	36	3	4	6	31	1	128	4	91	179	3
Input Volume	3	38	3	3	7	30	2	126	4	85	175	2
% of Volume	100	95	100	133	86	103	50	102	100	107	102	150
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

47: Baseline Rd & Essex County Rd 17 Performance by movement

Movement	All
Total Delay (hr)	0.7
Delay / Veh (s)	5.3
Total Stops	94
Travel Dist (km)	851.5
Travel Time (hr)	15.5
Avg Speed (kph)	55
Fuel Used (l)	59.6
HC Emissions (g)	179
CO Emissions (g)	5214
NOx Emissions (g)	648
Vehicles Entered	488
Vehicles Exited	489
Hourly Exit Rate	489
Input Volume	478
% of Volume	102
Denied Entry Before	0
Denied Entry After	0

53: Essex County Rd 42 & Lesperance Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	1.8	0.1	0.1	0.6	0.0	0.0	0.2	0.1	0.6	0.1	0.1
Delay / Veh (s)	17.4	13.0	10.1	13.0	5.6	2.5	32.8	34.5	11.4	38.0	33.3	6.1
Total Stops	35	119	4	10	84	16	4	19	14	51	10	28
Travel Dist (km)	70.8	624.0	22.6	5.0	115.8	22.0	1.8	8.5	5.8	24.5	5.8	14.1
Travel Time (hr)	1.5	12.4	0.5	0.2	2.6	0.5	0.1	0.4	0.2	1.1	0.2	0.4
Avg Speed (kph)	47	50	50	33	45	45	21	22	32	22	24	38
Fuel Used (l)	4.8	43.4	1.5	0.3	7.9	1.2	0.2	0.8	0.5	2.3	0.5	1.1
HC Emissions (g)	6	440	2	0	70	4	0	1	1	3	1	3
CO Emissions (g)	183	7601	50	10	1375	84	11	53	35	138	31	101
NOx Emissions (g)	26	1346	8	1	193	13	1	4	2	10	2	10
Vehicles Entered	57	500	18	16	400	72	5	23	16	57	14	33
Vehicles Exited	57	499	18	17	400	72	5	23	16	57	13	33
Hourly Exit Rate	57	499	18	17	400	72	5	23	16	57	13	33
Input Volume	56	496	19	18	398	75	6	21	18	51	12	30
% of Volume	102	101	95	94	101	96	83	110	89	112	108	110
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

53: Essex County Rd 42 & Lesperance Rd Performance by movement

Movement	All
Total Delay (hr)	4.0
Delay / Veh (s)	11.8
Total Stops	394
Travel Dist (km)	920.7
Travel Time (hr)	20.0
Avg Speed (kph)	46
Fuel Used (l)	64.4
HC Emissions (g)	531
CO Emissions (g)	9673
NOx Emissions (g)	1615
Vehicles Entered	1211
Vehicles Exited	1210
Hourly Exit Rate	1210
Input Volume	1200
% of Volume	101
Denied Entry Before	0
Denied Entry After	0

63: Essex County Rd 42 & Elmstead Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.5	1.3	0.1	0.0	0.1	2.0
Delay / Veh (s)	8.7	4.9	9.9	10.4	10.2	5.4	7.8
Total Stops	9	6	0	0	17	54	86
Travel Dist (km)	26.0	308.3	845.0	43.6	8.3	27.0	1258.3
Travel Time (hr)	0.6	6.7	15.8	0.8	0.2	0.7	24.9
Avg Speed (kph)	43	46	54	53	37	40	51
Fuel Used (l)	1.8	21.8	59.3	3.2	0.6	2.0	88.6
HC Emissions (g)	15	195	467	44	9	20	749
CO Emissions (g)	264	3339	8832	775	159	391	13760
NOx Emissions (g)	40	530	1448	131	22	53	2225
Vehicles Entered	26	333	480	25	17	54	935
Vehicles Exited	26	331	481	25	17	54	934
Hourly Exit Rate	26	331	481	25	17	54	934
Input Volume	28	330	486	23	18	49	934
% of Volume	93	100	99	109	94	110	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

66: Essex County Rd 42 & Patillo Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.3	2.1	1.1	0.2	1.1	0.4	5.2
Delay / Veh (s)	20.1	18.8	14.3	10.3	27.7	16.4	18.1
Total Stops	31	156	105	31	123	82	528
Travel Dist (km)	80.7	698.1	414.8	102.3	86.2	57.7	1439.7
Travel Time (hr)	1.9	16.3	8.2	2.0	2.7	1.5	32.7
Avg Speed (kph)	42	43	51	51	32	38	44
Fuel Used (l)	5.4	48.2	27.8	6.9	6.7	4.2	99.3
HC Emissions (g)	25	511	125	78	78	29	845
CO Emissions (g)	433	7945	2587	1420	1623	703	14711
NOx Emissions (g)	66	1355	402	222	211	84	2340
Vehicles Entered	47	398	274	68	146	98	1031
Vehicles Exited	47	399	273	68	147	99	1033
Hourly Exit Rate	47	399	273	68	147	99	1033
Input Volume	47	409	272	67	149	104	1048
% of Volume	100	98	100	101	99	95	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

68: Essex County Rd 42 & Puce Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	1.5	0.2	0.1	0.3	0.0	0.2	0.7	0.2	0.0	0.3	0.0
Delay / Veh (s)	16.7	14.5	12.7	12.4	9.0	4.1	30.3	31.0	13.7	21.4	25.3	6.1
Total Stops	15	109	28	16	44	3	19	64	51	4	28	16
Travel Dist (km)	39.7	416.7	64.4	19.3	116.8	6.0	12.0	44.9	34.4	2.2	20.3	10.7
Travel Time (hr)	0.7	6.9	1.3	0.4	2.0	0.1	0.4	1.3	0.8	0.1	0.6	0.2
Avg Speed (kph)	58	61	54	51	58	58	31	34	43	35	35	51
Fuel Used (l)	2.6	28.2	5.6	1.8	11.2	0.5	1.3	4.5	3.3	0.2	2.2	1.1
HC Emissions (g)	4	285	244	8	91	1	22	11	19	1	6	3
CO Emissions (g)	196	6503	4631	371	2956	83	550	877	825	53	463	238
NOx Emissions (g)	26	861	605	29	276	6	55	40	55	2	20	11
Vehicles Entered	31	377	69	23	140	7	23	84	64	5	42	22
Vehicles Exited	31	377	69	23	140	7	23	83	64	5	42	22
Hourly Exit Rate	31	377	69	23	140	7	23	83	64	5	42	22
Input Volume	35	388	70	25	140	8	23	81	64	6	40	21
% of Volume	89	97	99	92	100	88	100	102	100	83	105	105
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

68: Essex County Rd 42 & Puce Rd Performance by movement

Movement	All
Total Delay (hr)	3.9
Delay / Veh (s)	15.7
Total Stops	397
Travel Dist (km)	787.4
Travel Time (hr)	14.7
Avg Speed (kph)	54
Fuel Used (l)	62.4
HC Emissions (g)	695
CO Emissions (g)	17746
NOx Emissions (g)	1986
Vehicles Entered	887
Vehicles Exited	886
Hourly Exit Rate	886
Input Volume	901
% of Volume	98
Denied Entry Before	0
Denied Entry After	0

100: Home Depot Entrance & Walker Rd Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.9	0.2	0.0	0.6	1.0	2.2	0.2	5.1
Delay / Veh (s)	48.0	8.3	11.2	27.0	3.3	6.4	6.1	6.8
Total Stops	61	66	8	62	85	180	24	486
Travel Dist (km)	14.1	16.6	0.8	24.3	353.6	252.4	26.9	688.7
Travel Time (hr)	1.2	0.6	0.1	1.0	7.0	7.5	0.9	18.3
Avg Speed (kph)	12	28	14	24	51	34	30	38
Fuel Used (l)	1.6	1.1	0.1	1.8	23.5	27.5	2.6	58.1
HC Emissions (g)	1	1	0	2	114	110	3	232
CO Emissions (g)	51	59	9	50	2503	3196	183	6052
NOx Emissions (g)	4	4	1	7	352	390	20	779
Vehicles Entered	67	79	10	76	1123	1217	129	2701
Vehicles Exited	67	78	10	75	1124	1217	130	2701
Hourly Exit Rate	67	78	10	75	1124	1217	130	2701
Input Volume	68	74	9	80	1134	1230	127	2722
% of Volume	99	105	111	94	99	99	102	99
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

103: Best Buy Entrance & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.6	0.1	0.2	0.3	0.0	0.0	0.2	0.5	0.0	0.1	1.0	0.0
Delay / Veh (s)	44.4	42.8	10.6	45.3	54.3	11.4	18.5	1.6	0.9	14.5	2.9	2.1
Total Stops	41	9	51	21	3	2	39	57	1	11	89	2
Travel Dist (km)	11.9	3.0	15.4	4.1	0.6	0.3	6.9	178.7	2.4	4.3	369.0	7.8
Travel Time (hr)	0.8	0.2	0.5	0.4	0.1	0.0	0.4	3.6	0.1	0.1	8.5	0.2
Avg Speed (kph)	15	16	28	11	11	23	18	50	40	29	44	40
Fuel Used (l)	1.3	0.3	1.3	0.5	0.1	0.0	0.5	12.5	0.1	0.3	25.5	0.5
HC Emissions (g)	5	0	7	1	0	0	0	45	0	1	88	1
CO Emissions (g)	147	23	184	40	6	3	21	1144	6	20	1672	16
NOx Emissions (g)	14	1	19	2	0	0	2	154	1	3	257	2
Vehicles Entered	45	11	58	22	3	2	45	1166	15	14	1258	26
Vehicles Exited	45	11	58	22	3	2	45	1167	15	14	1258	26
Hourly Exit Rate	45	11	58	22	3	2	45	1167	15	14	1258	26
Input Volume	45	11	52	21	3	2	48	1183	14	17	1268	26
% of Volume	100	100	112	105	100	100	94	99	107	82	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

103: Best Buy Entrance & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	3.0
Delay / Veh (s)	4.1
Total Stops	326
Travel Dist (km)	604.4
Travel Time (hr)	14.8
Avg Speed (kph)	41
Fuel Used (l)	43.1
HC Emissions (g)	149
CO Emissions (g)	3281
NOx Emissions (g)	456
Vehicles Entered	2665
Vehicles Exited	2666
Hourly Exit Rate	2666
Input Volume	2690
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

107: Commercial Entrance & Concession Rd 7 Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	5.8	3.3	1.8	0.2	0.4	0.3	0.7
Total Stops	22	2	3	0	0	0	27
Travel Dist (km)	1.8	0.2	1.2	14.6	31.8	7.3	56.9
Travel Time (hr)	0.1	0.0	0.0	0.5	0.7	0.2	1.4
Avg Speed (kph)	22	25	24	32	48	42	40
Fuel Used (l)	0.2	0.0	0.1	2.8	2.3	0.5	5.9
HC Emissions (g)	0	0	0	15	5	3	23
CO Emissions (g)	17	2	11	580	173	78	860
NOx Emissions (g)	1	0	1	48	14	9	73
Vehicles Entered	22	2	17	217	129	30	417
Vehicles Exited	22	2	18	217	129	30	418
Hourly Exit Rate	22	2	18	217	129	30	418
Input Volume	21	3	18	219	136	28	425
% of Volume	105	67	100	99	95	107	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

108: Provincial Rd & Walker Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.4	2.2	0.6	0.6	1.4	0.5	1.0	11.5	1.1	3.1	4.1	0.1
Delay / Veh (s)	36.4	40.1	16.3	38.0	36.4	11.8	28.0	38.8	33.9	41.4	13.4	7.2
Total Stops	32	165	110	54	111	117	123	901	88	240	364	4
Travel Dist (km)	18.6	99.8	66.8	20.0	47.8	51.2	81.6	705.2	76.2	102.3	420.1	12.6
Travel Time (hr)	0.8	4.3	2.1	1.1	2.4	1.7	2.7	25.8	2.7	5.3	12.7	0.3
Avg Speed (kph)	24	23	33	19	20	31	31	27	28	19	33	37
Fuel Used (l)	1.4	8.1	4.8	1.7	4.0	3.4	6.2	56.7	5.9	10.2	36.7	1.0
HC Emissions (g)	1	26	41	27	30	23	28	135	76	38	125	1
CO Emissions (g)	35	470	680	416	485	384	587	3086	1282	868	3157	51
NOx Emissions (g)	5	71	110	65	74	59	77	418	191	112	416	6
Vehicles Entered	38	201	134	60	141	150	123	1069	118	266	1102	34
Vehicles Exited	37	200	134	58	142	151	123	1065	117	266	1100	34
Hourly Exit Rate	37	200	134	58	142	151	123	1065	117	266	1100	34
Input Volume	36	196	141	58	140	151	121	1075	120	268	1100	33
% of Volume	103	102	95	100	101	100	102	99	98	99	100	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

108: Provincial Rd & Walker Rd Performance by movement

Movement	All
Total Delay (hr)	26.5
Delay / Veh (s)	27.9
Total Stops	2309
Travel Dist (km)	1702.0
Travel Time (hr)	61.6
Avg Speed (kph)	28
Fuel Used (l)	140.2
HC Emissions (g)	552
CO Emissions (g)	11500
NOx Emissions (g)	1603
Vehicles Entered	3436
Vehicles Exited	3427
Hourly Exit Rate	3427
Input Volume	3439
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

111: Christian Fellowship & Concession Rd 7 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.9	1.3	5.7	3.7	0.9	1.1	1.0
Total Stops	1	0	1	7	1	4	14
Travel Dist (km)	12.7	0.3	0.2	1.4	0.6	8.1	23.3
Travel Time (hr)	0.5	0.0	0.0	0.0	0.0	0.3	0.9
Avg Speed (kph)	25	25	32	33	32	27	27
Fuel Used (l)	1.8	0.1	0.0	0.1	0.0	0.3	2.3
HC Emissions (g)	8	1	0	1	0	0	10
CO Emissions (g)	231	28	0	20	2	10	291
NOx Emissions (g)	28	4	0	2	0	1	35
Vehicles Entered	227	6	1	7	9	123	373
Vehicles Exited	226	6	1	7	9	123	372
Hourly Exit Rate	226	6	1	7	9	123	372
Input Volume	229	5	1	7	10	129	381
% of Volume	99	120	100	100	90	95	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	269.2
Delay / Veh (s)	71.7
Total Stops	20181
Travel Dist (km)	40866.4
Travel Time (hr)	1023.4
Avg Speed (kph)	40
Fuel Used (l)	3313.9
HC Emissions (g)	17902
CO Emissions (g)	432001
NOx Emissions (g)	55004
Vehicles Entered	13535
Vehicles Exited	13481
Hourly Exit Rate	13481
Input Volume	104827
% of Volume	13
Denied Entry Before	0
Denied Entry After	1

Intersection: 1: Airport Rd & Walker Rd

Movement	EB	WB	NB	NB	SB	SB	B4	B4
Directions Served	LR	LR	LT	TR	LT	TR	T	T
Maximum Queue (m)	4.0	27.9	40.1	46.1	57.3	58.8	32.2	27.5
Average Queue (m)	0.2	8.9	4.7	6.6	12.4	11.6	2.0	1.8
95th Queue (m)	2.5	21.1	22.8	28.7	38.8	41.1	16.6	15.7
Link Distance (m)	195.3	478.8	144.8	144.8	339.5	339.5	37.0	37.0
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (m)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Legacy Park Dr & Walker Rd

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (m)	35.4	83.0	22.4	41.1	33.4	135.9	143.6	12.7	99.8	109.5
Average Queue (m)	27.1	33.9	15.4	12.9	13.3	67.4	78.4	2.8	57.3	60.8
95th Queue (m)	41.0	67.5	26.5	33.9	25.8	123.6	136.7	9.6	89.9	93.6
Link Distance (m)		206.4		38.9		365.8	365.8		151.4	151.4
Upstream Blk Time (%)				2						
Queuing Penalty (veh)				3						
Storage Bay Dist (m)	28.0		15.0		120.0			65.0		
Storage Blk Time (%)	15	11	25	7		0			5	
Queuing Penalty (veh)	25	16	11	6		0			1	

Intersection: 5: Moxlay Ave & Walker Rd

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LR	LR	LT	TR	LT	TR
Maximum Queue (m)	23.2	11.4	50.3	43.7	29.4	12.3
Average Queue (m)	8.3	2.3	8.8	3.6	2.1	0.5
95th Queue (m)	17.9	9.0	33.2	24.2	13.5	5.7
Link Distance (m)	253.3	66.1	311.2	311.2	144.8	144.8
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: Division Rd & Walker Rd

Movement	EB	EB	EB	B18	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	TR	L	T
Maximum Queue (m)	71.4	83.3	64.0	11.9	57.5	50.4	52.9	67.4	101.9	127.2	67.4	223.3
Average Queue (m)	34.8	41.9	18.5	0.8	29.5	23.2	26.2	33.1	49.6	60.3	24.0	128.9
95th Queue (m)	63.9	73.5	44.4	11.0	52.4	41.6	44.0	59.6	88.7	105.8	60.0	225.4
Link Distance (m)		104.1		291.4	64.1	64.1	64.1		177.2	177.2		311.2
Upstream Blk Time (%)		1			0		0					0
Queuing Penalty (veh)		0			0		0					0
Storage Bay Dist (m)	80.0		87.0					62.0			60.0	
Storage Blk Time (%)	1	0						0	3		0	30
Queuing Penalty (veh)	4	1						2	6		0	29

Intersection: 12: Division Rd & Walker Rd

Movement	SB
Directions Served	TR
Maximum Queue (m)	229.0
Average Queue (m)	138.6
95th Queue (m)	232.5
Link Distance (m)	311.2
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Essex County Rd 42 & Manning Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (m)	67.3	148.4	48.6	84.5	108.9	156.7	70.0	117.8
Average Queue (m)	18.7	80.7	13.6	36.8	38.4	76.2	19.8	59.2
95th Queue (m)	48.2	138.0	30.7	69.0	77.3	130.8	50.4	108.7
Link Distance (m)		262.3		1007.8		515.9		525.4
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	60.0		75.0		120.0		120.0	
Storage Blk Time (%)		16	0	0	0	2	0	1
Queuing Penalty (veh)		14	0	0	0	3	0	1

Intersection: 19: Division Rd & Riberdy Rd

Movement	EB	WB	WB	SB	B20
Directions Served	LT	T	TR	LR	T
Maximum Queue (m)	52.6	5.6	6.5	29.2	3.6
Average Queue (m)	8.9	0.4	0.2	12.2	0.1
95th Queue (m)	30.9	3.3	2.6	21.7	2.4
Link Distance (m)	64.1	27.1	27.1	277.0	13.1
Upstream Blk Time (%)	0				0
Queuing Penalty (veh)	0				0
Storage Bay Dist (m)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23: Division Rd & Baseline Rd

Movement
Directions Served
Maximum Queue (m)
Average Queue (m)
95th Queue (m)
Link Distance (m)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (m)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 26: Division Rd & Concession Rd 7

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	37.4	30.6
Average Queue (m)	8.4	13.7
95th Queue (m)	25.7	23.9
Link Distance (m)	88.5	377.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Division Rd & Airport In Entrance

Movement	EB
Directions Served	L
Maximum Queue (m)	12.9
Average Queue (m)	2.6
95th Queue (m)	9.5
Link Distance (m)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	65.0
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 29: Division Rd & Airport Out Entrance

Movement	SB	SB
Directions Served	L	R
Maximum Queue (m)	10.4	21.2
Average Queue (m)	2.5	8.2
95th Queue (m)	9.3	16.6
Link Distance (m)	137.7	137.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 31: Division Rd & Concession Rd 8

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	36.6	20.4
Average Queue (m)	5.9	7.9
95th Queue (m)	22.6	15.6
Link Distance (m)	1627.3	520.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: North Talbot Rd & Essex County Rd 17

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	25.0	0.7	53.4
Average Queue (m)	4.3	0.0	23.9
95th Queue (m)	16.4	0.7	43.8
Link Distance (m)	591.6	546.2	3815.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: Essex County Rd 42 & Banwell Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (m)	33.3	86.1	74.1	59.1
Average Queue (m)	13.2	27.3	26.3	29.6
95th Queue (m)	25.6	61.5	59.1	50.3
Link Distance (m)		784.6	1235.9	494.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	120.0			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 47: Baseline Rd & Essex County Rd 17

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	13.6	16.5	17.3
Average Queue (m)	7.0	6.2	2.8
95th Queue (m)	13.1	13.1	11.2
Link Distance (m)	567.5	615.6	1267.7
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: Essex County Rd 42 & Lesperance Rd

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	T	R	L	TR	L	TR
Maximum Queue (m)	26.4	91.0	12.3	59.0	20.6	7.7	19.8	26.0	18.0
Average Queue (m)	6.9	31.2	2.7	20.6	3.6	1.0	5.7	11.2	5.9
95th Queue (m)	19.2	71.1	9.7	44.5	13.0	5.1	14.6	22.3	13.8
Link Distance (m)		1235.9		291.6			351.2		409.6
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (m)	90.0		70.0		45.0	50.0		50.0	
Storage Blk Time (%)		0		1					
Queuing Penalty (veh)		0		0					

Intersection: 63: Essex County Rd 42 & Elmstead Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	35.7	25.9
Average Queue (m)	4.4	11.4
95th Queue (m)	19.4	21.3
Link Distance (m)	1043.2	489.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 66: Essex County Rd 42 & Patillo Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (m)	21.9	89.4	62.7	70.9
Average Queue (m)	7.6	35.7	27.5	36.6
95th Queue (m)	17.4	70.6	52.7	62.1
Link Distance (m)		2062.0	1604.6	574.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	125.0			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 68: Essex County Rd 42 & Puce Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	95.4	37.7	50.8	25.6
Average Queue (m)	34.3	13.5	24.4	10.2
95th Queue (m)	69.9	29.5	43.8	21.2
Link Distance (m)	1264.8	836.5	520.8	469.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 100: Home Depot Entrance & Walker Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	R	R	L	T	TR	T	TR
Maximum Queue (m)	34.9	17.4	6.5	28.0	28.3	37.7	43.9	49.3
Average Queue (m)	14.8	7.4	1.1	9.6	8.4	12.6	19.0	24.6
95th Queue (m)	29.5	14.3	4.8	21.2	21.9	29.8	37.1	43.6
Link Distance (m)	193.6		61.5		299.6	299.6	177.2	177.2
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)		85.0		55.0				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 103: Best Buy Entrance & Walker Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	TR	L	T	T	R
Maximum Queue (m)	27.4	12.2	23.7	22.0	10.4	20.6	25.8	28.0	16.0	36.5	39.8	7.8
Average Queue (m)	10.2	2.1	7.0	6.1	1.4	7.6	5.7	7.7	3.1	9.9	12.4	0.6
95th Queue (m)	22.3	7.6	16.5	16.8	6.6	17.2	18.1	21.0	11.0	26.9	29.6	4.1
Link Distance (m)		249.9			173.4		134.0	134.0		276.1	276.1	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (m)	40.0		40.0	25.0		110.0			75.0			70.0
Storage Blk Time (%)	0			0	0							
Queuing Penalty (veh)	0			0	0							

Intersection: 107: Commercial Entrance & Concession Rd 7

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	12.1	10.2
Average Queue (m)	5.6	0.9
95th Queue (m)	13.3	5.5
Link Distance (m)	68.6	49.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 108: Provincial Rd & Walker Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B125
Directions Served	L	T	T	R	L	T	T	R	L	T	TR	T
Maximum Queue (m)	23.0	36.8	38.5	40.6	39.3	31.8	39.1	45.0	101.5	199.9	210.2	51.8
Average Queue (m)	8.3	18.4	21.9	18.2	15.2	11.7	15.7	15.6	25.3	99.0	106.7	4.1
95th Queue (m)	19.2	32.2	34.8	34.2	32.5	24.8	30.1	33.2	67.3	176.1	183.6	28.6
Link Distance (m)		475.4				320.3	320.3			640.5	640.5	53.2
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (m)	55.0		70.0	70.0	88.0			100.0	107.0			
Storage Blk Time (%)									0	7		
Queuing Penalty (veh)									0	8		

Intersection: 108: Provincial Rd & Walker Rd

Movement	B125	SB	SB	SB	SB
Directions Served	T	L	T	T	R
Maximum Queue (m)	53.0	96.7	91.2	103.2	37.0
Average Queue (m)	3.7	47.4	37.5	46.5	3.1
95th Queue (m)	27.1	80.9	77.3	87.6	23.9
Link Distance (m)	53.2		365.8	365.8	
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (m)		140.0			48.0
Storage Blk Time (%)		0		5	0
Queuing Penalty (veh)		0		2	0

Intersection: 111: Christian Fellowship & Concession Rd 7

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	3.6	13.9	17.0
Average Queue (m)	0.3	2.1	1.3
95th Queue (m)	3.2	9.0	9.2
Link Distance (m)	38.9	179.1	49.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			