FOX CREEK ELEMENTARY TO EAGLE RIDGE ELEMENTARY CONSOLIDATION WITHOUT 6TH GRADE

Traffic Impact Study

Project Number: 1124175

Prepared For: Douglas County School District

March 21, 2025

DIBBLE

FOX CREEK ELEMENTARY TO EAGLE RIDGE ELEMENTARY CONSOLIDATION WITHOUT 6TH GRADE

Traffic Impact Study

Highlands Ranch, Colorado

Project Number: 1124175

Prepared For: Douglas County School District
Planning and Construction
2808 Highway 85, Building B
Castle Rock, Colorado 80109

March 21, 2025

Nicholas J Westphal, PE
Project Manager
Dibble & Associates Consulting Engineers, Inc., dba Dibble

Table of Contents

List of Figures

List of Tables

Appendices

EXECUTIVE SUMMARY

Douglas County School District is considering options for consolidating schools in Highlands Ranch, Colorado. One option being considered is moving Fox Creek Elementary into Eagle Ridge Elementary. In addition, the 6th grade students will be moved from the elementary schools to a middle school. This traffic impact study addresses existing traffic patterns and potential traffic challenges at Eagle Ridge Elementary, while considering the anticipated increase in traffic caused by the school consolidation.

Eagle Ridge has a parking lot to the south of the building with a single access point to Ptarmigan Trail. This parking lot contains a dedicated pick-up and drop-off lane. The intersection of Ptarmigan Trail and Timberline Road feature pedestrian crosswalks. Another pair of pedestrian crosswalks cross Ptarmigan Trail directly adjacent to the parking lot access point. School bus service is provided for individuals within Eagle Ridge's attendance boundary but is restricted to individuals living more than one mile from the school. This bus service will be expanded for Fox Creek students who qualify after relocating to Eagle Ridge.

The projected 2028-2029 combined enrollment is 794 students if 6th Grade is not retained at the elementary level. These projected combined enrollment numbers are 24 percent more than the previous maximum Eagle Ridge enrollment. When the existing traffic at Fox Creek is relocated to Eagle Ridge, additional students will be eligible to take the bus. It is anticipated that about 1/2 of the Fox Creek students will be newly eligible to take the bus to school. Students who currently walk to Fox Creek are unlikely to walk to Eagle Ridge due to distance and crossing a major roadway, therefore, it is assumed that these students will now be driven to school and count as a new vehicular trip to Eagle Ridge. Taking into account the estimated street parking trips, the ingress/egress trips, pedestrians and bicyclists converted to vehicle trips, anticipated carpooling and the subtraction of new bus ridership, the resulting increase in trip demand for Eagle Ridge is about 237 trips during the morning peak hour and 228 trips during the afternoon peak hour.

Traffic will be increased with the additional enrollment, but additional bus service will be offered, limiting the impact of the increased enrollment. Although historic enrollment levels suggest Eagle Ridge could accommodate the increased traffic, more vehicles and pedestrians are expected. To address existing and potential future traffic challenges the following mitigation measures are recommended:

- Partner with the Church of Jesus Christ of Latter-Day Saints to utilize their parking lot as an additional parking area for student pickup to limit on-street parking. Update the Eagle Ridge Traffic Management Plan as necessary.

1. INTRODUCTION

1.1 Study Purpose and Scope

The purpose of this Traffic Impact Study (TIS) is to discuss the existing traffic patterns at Eagle Ridge Elementary (Eagle Ridge) and potential mitigation measures for current traffic and potential increased traffic due to increased enrollment caused by school consolidations. A potential school consolidation option includes having Fox Creek Elementary (Fox Creek) consolidate into Eagle Ridge. Additionally, this report focuses on reducing the enrollment of both schools by removing the 6th grade students from the elementary school level and sending them to Ranch View Middle School instead.

The scope of this TIS includes accessing school driveways, nearby intersections, school parking lots, school drop off and pickup locations, traffic flow, bicycle and pedestrian facilities, and general traffic challenges at Eagle Ridge.

1.2 Study Area

Eagle Ridge Elementary School is located at 7716 Timberline Road in the eastern region of Highlands Ranch. This school is near the intersection of Timberline Road and Ptarmigan Trail. The parcel number for the property is 223109216010. A vicinity map showing the school's location is provided as **Figure 1**.

Figure 1 – Vicinity Map

The study area was determined through consultation with Douglas County School District (DCSD) and Douglas County and potentially impacted intersections were identified. Each school access and adjacent streets are included in the TIS study area as well as the following intersections:

- Quebec Street at Collegiate Drive
- Quebec Street at Timberline Road
- University Boulevard at Cresthill Lane
- Timberline Road at Ptarmigan Trail

Neighborhood local and collector streets are analyzed for safety challenges, bicycle and pedestrian facilities, parking availability, and queueing lengths. Larger intersections at arterial streets are analyzed for the same items, but also for accident history and traffic signal warrant criteria if a traffic signal is not present.

1.3 School Description

Eagle Ridge

Eagle Ridge has a start time of 8:35 AM and an end time of 3:30 PM. The school is located in the neighborhood to the northeast of the intersection of S Quebec Street and Lincoln Avenue. Eagle Ridge has a parking lot to the south of the building with a single access point to Ptarmigan Trail. This parking lot contains a dedicated pick-up and drop-off lane. The intersection of Ptarmigan Trail and Timberline Road feature pedestrian crosswalks. Another pair of pedestrian crosswalks cross Ptarmigan Trail directly adjacent to the parking lot access point. Eagle Ridge has a maximum Capacity of 800 students but the largest enrollment since 2013 is 639 students.

School bus service is provided for individuals within Eagle Ridge's attendance boundary but is restricted to individuals living more than one mile from the school. **Figure 2** depicts Eagle Ridge's local attendance boundary in lavender with the orange circle representing the walking radius. As of November 2024, 264 individuals are eligible to receive bus service, and 171 individuals have used the bus service which is a 65 percent rate.

Fox Creek

Fox Creek has a start time of 8:35 AM and an end time of 3:30 PM. The school is located in the neighborhood to the northeast of the intersection S Broadway and E Highlands Ranch Parkway. Fox Creek has a maximum Capacity of 1,000 students but the largest enrollment since 2013 is 743 students.

School bus service is provided for individuals within Fox Creek's attendance boundary, but is restricted to individuals living more than one mile from the school. **Figure 3** depicts Fox Creek's local attendance boundary in blue with the orange circle representing the walking radius. As of November 2024, 120 individuals are eligible to receive bus service, and 88 individuals have used the bus service which is a 73 percent rate. Most of the students attending Fox Creek do not live within 1 mile of Eagle Ridge. Therefore, they would qualify for bus service to Eagle Ridge.

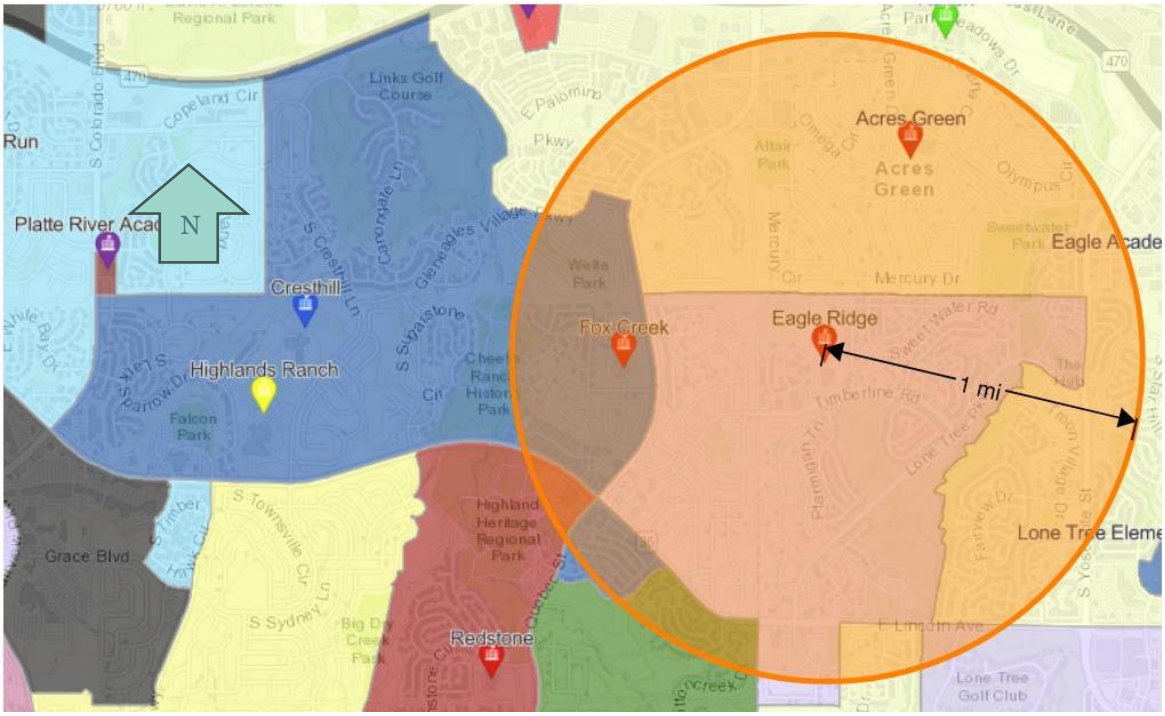


Figure 2 – Eagle Ridge Bus Service Map

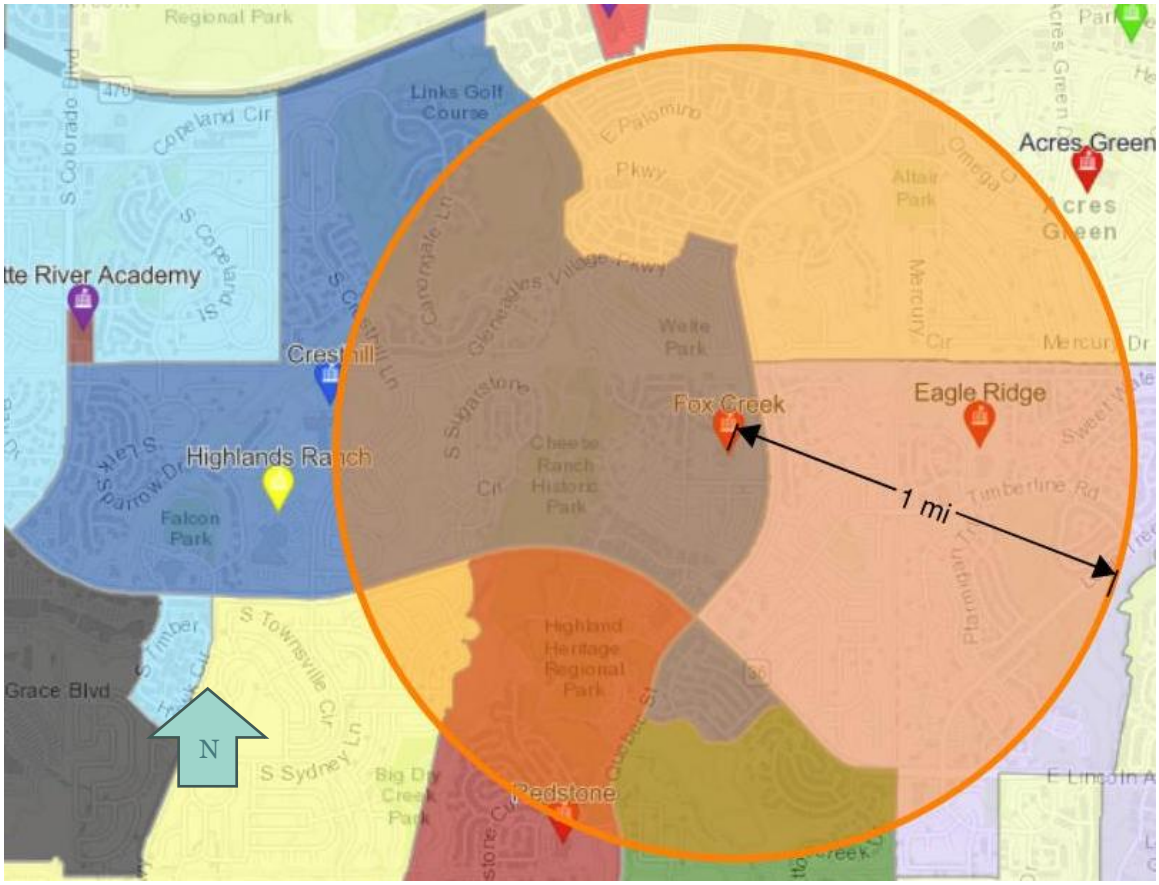


Figure 3 – Fox Creek Bus Service Map

2. EXISTING CONDITIONS

2.1 Site Observation

A site observation was performed at Eagle Ridge on November 15, 2024. Field notes from the site observation are included in **Appendix A**. The morning site observation was conducted from 7:45 AM through 9:15 AM and the afternoon site observation was conducted from 2:45 PM through 4:15 PM. Key observations included:

- Heavy Congestion on Ptarmigan Trail
- Unauthorized parking on Ptarmigan Trail

2.2 Roadway Network

The Highlands Ranch roadway network is maintained by Douglas County. Eagle Ridge is situated within a built-out neighborhood and is surrounded by local and neighborhood collector streets. The main access to the neighborhood is Quebec Street at Timberline Road. Timberline Road extends from the school to a signalized intersection at Quebec Street and an unsignalized intersection at Lone Tree Parkway.

Fox Creek traffic driving to Eagle Ridge will mainly use Quebec Street and Timberline Road. **Figure 4** depicts the most likely route that would be taken from Fox Creek to Eagle Ridge.

School zone flashers are located on Timberline Road on either side of Ptarmigan Trail, and one on Ptarmigan Trail.

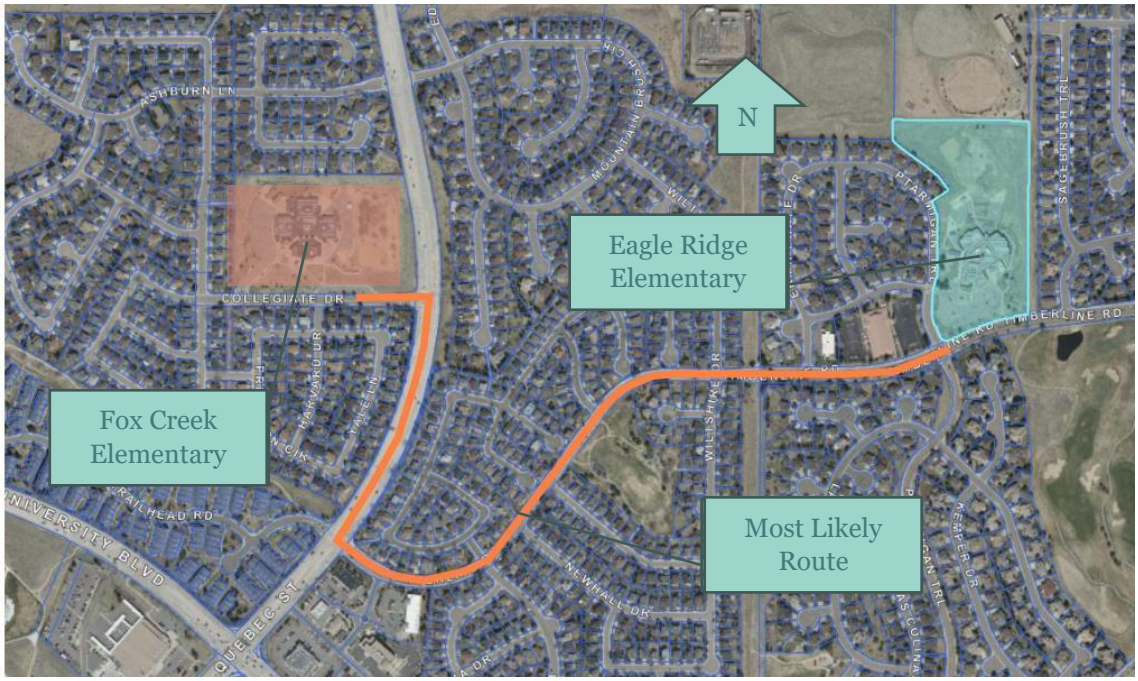


Figure 4 – Route from Fox Creek to Eagle Ridge

Quebec Street at Collegiate Drive
The intersection of Quebec Street and Timberline Road is a signalized, four-way intersection that has permissive/protected left-turn lanes/phases for northbound Quebec Street and permissive left-turn lanes/phases for Timberline Drive. **Figure 5** shows an aerial of the intersection with the current intersection layout.

Northbound Quebec Street has three through lanes and a dedicated left-turn lane. This lane has approximately 120 feet of storage space with a 70-foot taper. There is no dedicated right-turn lane. Southbound Quebec Street also has three through lanes and a dedicated left-turn lane. This lane has approximately 320 feet of storage space with a 330-foot taper. A dedicated right-turn lane is not present. Bike lanes are not present on Quebec Street.

The eastbound approach of Collegiate Drive contains one through dedicated left-turn lane and one dedicated right-turn lane. These Lanes each have approximately 90 feet of storage.

Figure 5 – Quebec Street at Collegiate Drive

Quebec Street at Timberline Road/Silver Spur Lane
The intersection of Quebec Street and Timberline Road is a signalized, four-way intersection that has permissive/protected left-turn lanes/phases for all Quebec Street approaches and permissive left-turn lanes/phases for Timberline Drive approaches. **Figure 6** shows an aerial of the intersection with the current intersection layout.

Northbound Quebec Street has three through lanes and a dedicated left-turn lane. This lane has approximately 120 feet of storage space with a 70-foot taper. There is no dedicated right-turn lane. Southbound Quebec Street also has three through lanes and a dedicated left-turn lane. This lane has approximately 320 feet of storage space with a 330-foot taper. A dedicated right-turn lane is not present. Bike lanes are not present on Quebec Street.

The eastbound approach of Silver Spur Lane contains one through lane and a dedicated left-turn lane, with 50 feet of storage space. A median is present at this approach. There are no bike lanes on Silver Spur Lane.

The westbound approach of Timberline Road contains one through lane and a dedicated left-turn lane, with 180 feet of storage space and a 90-foot taper. Bike lanes are present for both directions of Timberline Road but merge with traffic near the intersection.

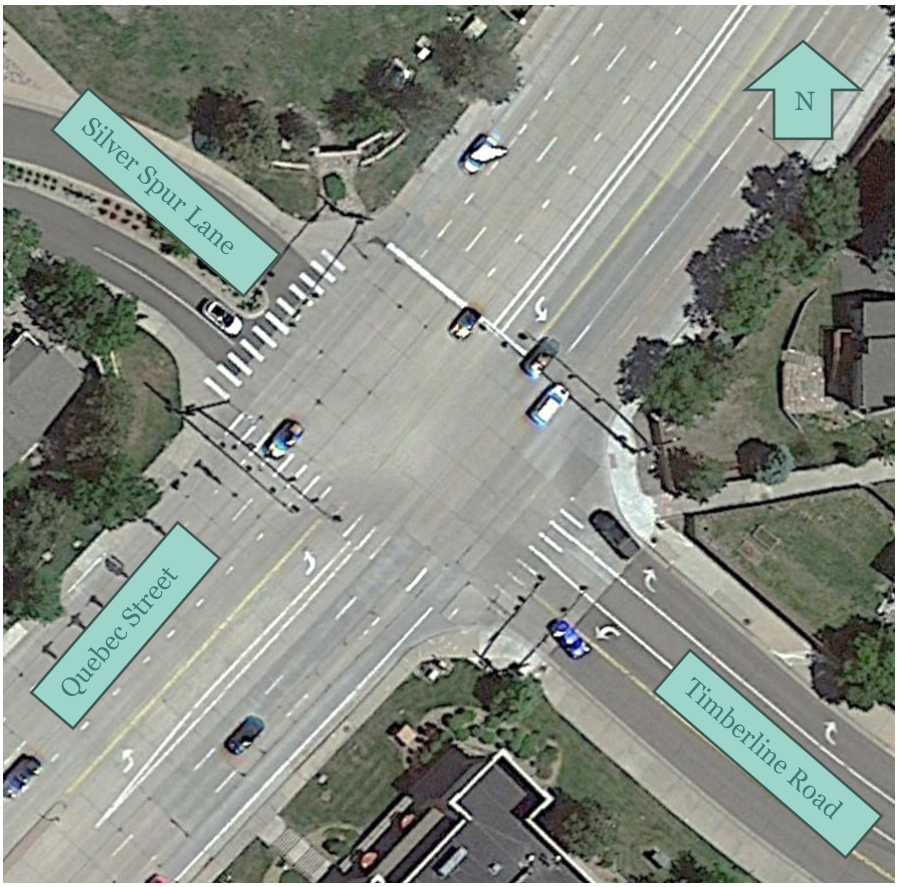


Figure 6 – Quebec Street at Timberline Road/Silver Spur Lane

University Boulevard at Cresthill Lane

The intersection of University Boulevard at Cresthill Lane is a signalized, four-way intersection that has protected left-turn lanes/phases for the University Boulevard approaches and protected/permissive lanes/phases for the Cresthill Lane approaches. **Figure 7** shows an aerial of the intersection with the current intersection layout.

Westbound University Boulevard has three through lanes and two dedicated left-turn lanes with approximately 1,000 feet of storage and a 120-foot taper before transitioning to a striped median. There is no dedicated right-turn lane. Eastbound University Boulevard also has three through lanes, with a singular dedicated left-turn lane. This lane has approximately 390 feet of storage with a 140-foot taper before transitioning to a striped median. A dedicated right-turn lane is present on this approach, containing 340 feet of storage with a 90-foot taper. Bike lanes are present on both directions of University Boulevard.

The northbound approach of Cresthill Lane contains one through lane, and a dedicated left-turn lane with 90 feet of storage and a 90-foot taper. The southbound approach contains one through lane. A second through lane transitions to a dedicated left-turn lane approximately 130 feet north of the intersection. A dedicated right-turn lane has 140 feet of storage with a 50-foot taper. Bike lanes are not present on Cresthill Lane.

Figure 7 – University Boulevard at Cresthill Lane

Timberline Road and Ptarmigan Trail
The intersection of Timberline Road and Ptarmigan Trail is an unsignalized four-way intersection that is controlled by a stop sign on all approaches. Crosswalks with pedestrian indicator push buttons for crossing Timberline Road are present. The push buttons activate flashing red beacons on Timberline Road at the crosswalk locations. **Figure 8** shows an aerial of the intersection with the current intersection layout.

Westbound Timberline Road has one through lane and a dedicated left-turn lane with approximately 80 feet of storage and a 60-foot taper before transitioning to a physical median. There is no dedicated right-turn lane. Eastbound Timberline Road also has one through lane and a dedicated left-turn lane with approximately 90 feet of storage and a 60-foot taper before transitioning to a physical median. There is no dedicated right-turn lane. Bike lanes are present on both directions of Timberline Road.

Both approaches of Ptarmigan Trail only contain a through lane. Bike lanes are present in both directions on Ptarmigan Trail south of the intersection.

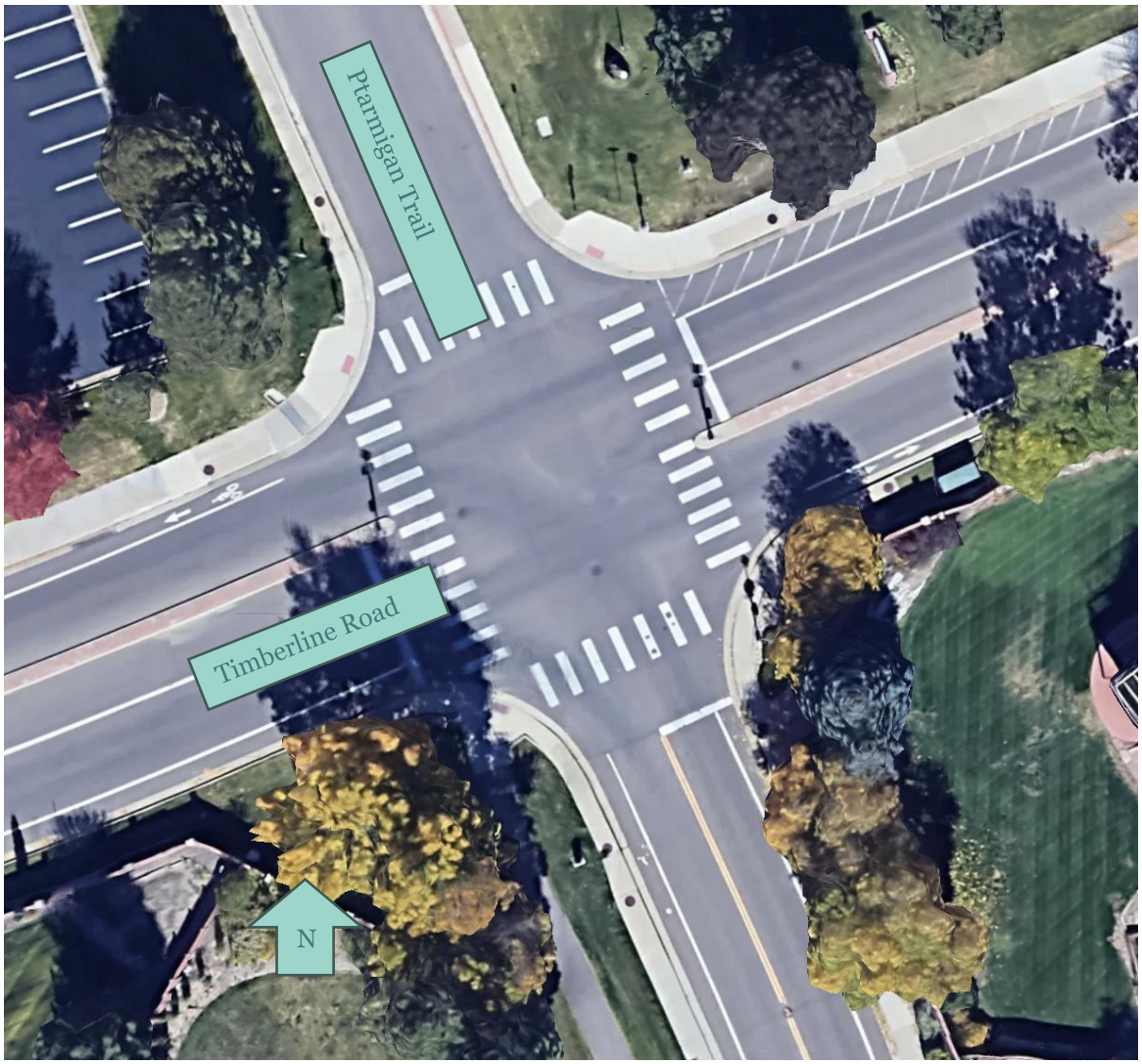


Figure 8 – Timberline Road at Ptarmigan Trail

Roadway Characteristics
General features of the roadways along the most likely route from Fox Creek to Eagle Ridge are summarized in **Table 1**.

Table 1 – Roadway Characteristics

Roadway	Cresthill Lane	University Boulevard	Quebec Street	Timberline Road
Speed Limit	30 mph	45 mph	45 mph	30 mph
Number of Through Lanes	2 NB, 1 SB	6	6	2
Lane Width	12 feet	11 feet	11 feet	16 feet*
Bike Lane Width	None	6 feet	7 feet	5 feet
Median	None	Striped	Physical & Striped	Physical**
On-Street Parking	None	None	None	None

*Lane width is measured from bike lane to edge of pavement at median
**The median discontinues west of Erminedale Drive

2.3 Traffic Volumes

Traffic data collection was conducted by Rekor Systems (All Traffic Data) on Wednesday, November 13, 2024. Traffic volumes were collected at the following applicable intersections:

- Quebec Street at Collegiate Drive
- Quebec Street at Timberline Road
- Lone Tree Parkway at Timberline Road
- Lone Tree Parkway at Yosemite Street
- University Boulevard at Cresthill Lane
- Timberline Road at Ptarmigan Trail
- Eagle Ridge Access Drive/Deercrest Way at Ptarmigan Trail

Traffic count data is summarized in **Table 2** below and is included in **Appendix B** The existing traffic is shown in **Figure 9**.

2.4 Existing Level of Service

The existing capacity analysis for the key intersections included in **Table 2** was evaluated using Synchro 11 Software (Synchro). The resulting level of service (LOS) and delay are summarized in **Table 9** provided in **Section 4** of this report for comparison to the future projected traffic capacity analysis.

Existing traffic signal timing plans provided by Douglas County are included in **Appendix C**.

Level of service reports from Synchro are included in **Appendix D**.

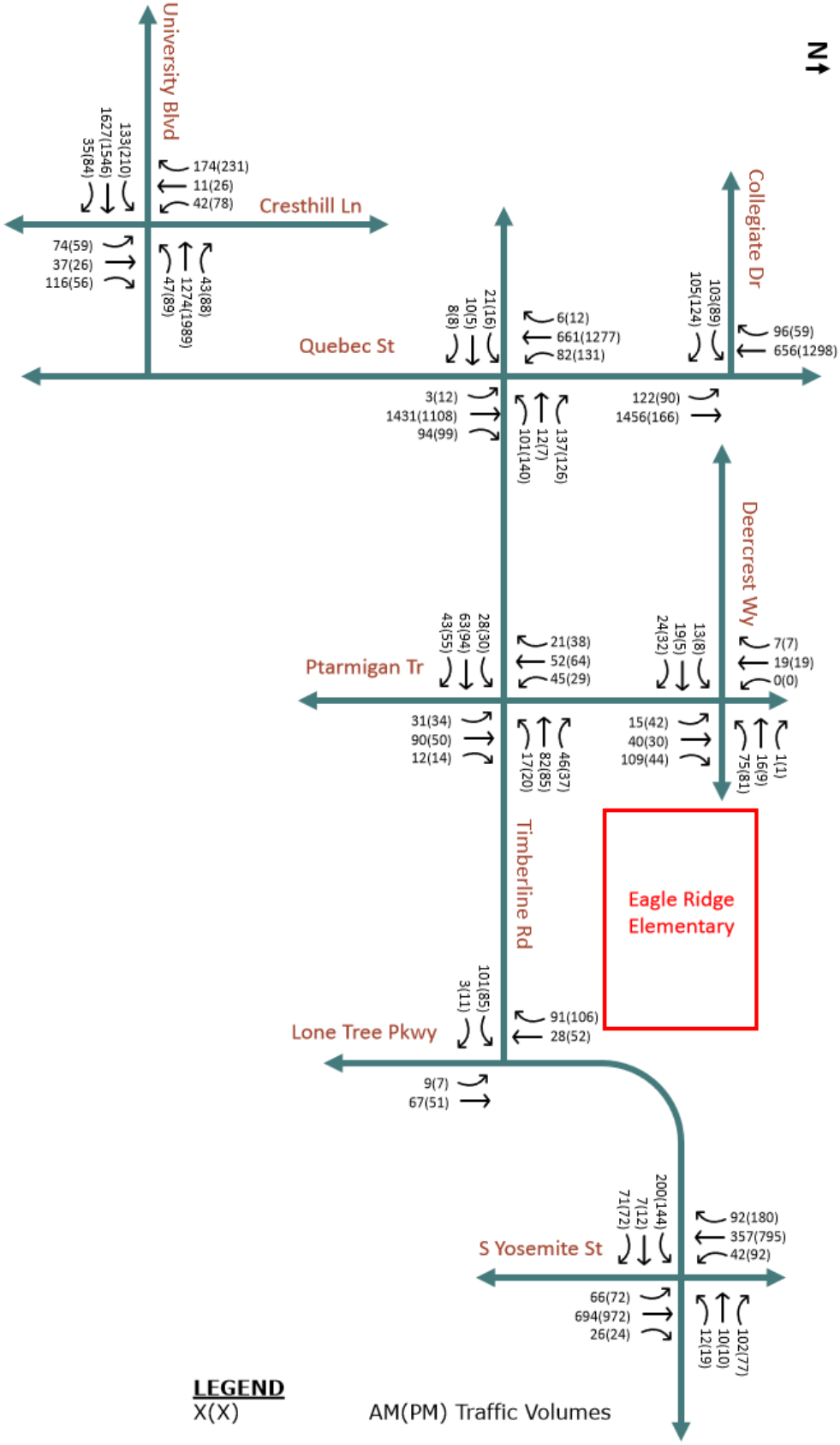


Figure 9 – Exisitng Traffic

Table 2 – Traffic Volume Summary

Intersection	Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lone Tree Pkwy & Yosemite St	AM	200	7	71	12	10	102	66	694	26	42	357	92
	PM	144	12	72	19	10	77	72	972	24	92	795	180
Timberline Rd & Lone Tree Pkwy	AM	101	0	3	0	0	0	9	67	0	0	28	91
	PM	85	0	11	0	0	0	7	51	0	0	52	106
Timberline Rd & Ptarmigan Trail	AM	28	63	43	17	82	46	31	90	12	45	52	21
	PM	30	94	55	20	85	37	34	50	14	29	64	38
Deercrest Way & Ptarmigan Trail	AM	13	19	24	75	16	1	15	40	109	0	19	7
	PM	8	5	32	81	9	1	42	30	44	0	19	7
Collegiate Dr & Quebec St	AM	103	0	105	0	0	0	122	1456	0	0	656	96
	PM	89	0	124	0	0	0	90	166	0	0	1298	59
Timberline Rd & Quebec St	AM	21	10	8	101	12	137	3	1431	94	82	661	6
	PM	16	5	8	140	7	126	12	1108	99	131	1277	12
University Blvd & Cresthill Ln	AM	133	1627	35	47	1274	43	74	37	116	42	11	174
	PM	210	1546	84	89	1989	88	59	26	56	78	26	231

2.5 Traffic Safety Analysis

Intersection Crash Analysis

Crash history was reviewed at the intersections of Quebec Street at Collegiate Drive, Quebec Street at Timberline Road, University Boulevard at Cresthill Lane, Colorado Boulevard at Venneford Ranch Road, and University Boulevard at Venneford Ranch Road. Crashes were reviewed for the period between 2019 and 2024. **Table 3** Summarizes the year-by-year crash data for the intersections.

Crash diagrams and a listing of crashes are provided in **Appendix E**.

Quebec Street at Collegiate Drive

There was a total of 6 crashes at Quebec Street and Collegiate Drive over the course of the study period. Two of these involved injuries. Of the 25 crashes, 2 involved a left turn, and 2 were at night. None of these accidents involved a 3rd vehicle and none involved a bicycle.

Quebec Street at Timberline Road

There was a total of 25 crashes at Quebec Street and Timberline Road over the course of the study period. Three of these involved injuries. Of the 25 crashes, 10 involved a left turn, and 4 were at night. None of these accidents involved a 3rd vehicle and one involved a bicycle.

University Boulevard and Cresthill Lane

There was a total of 89 crashes at University Boulevard and Cresthill Lane over the course of the study period. 16 of these involved an injury. Of the 89 crashes, 13 involved a left turn, and 10 were at night. 16 of these accidents involved a 3rd vehicle and 2 involved a bicycle. One accident also involved a pedestrian. An overwhelming majority of the accidents at this intersection were rear-ends.

University Boulevard and Venneford Ranch Road

There was a total of 33 crashes at University Boulevard and Venneford Ranch Road over the course of the study period. Ten of these involved an injury. Of the 33 crashes, 17 involved a left turn, and 8 were at night. One of these accidents involved a 3rd vehicle and one involved a bicycle.

Colorado Boulevard and Venneford Ranch Road

There was a total of 16 crashes at Colorado Boulevard and Venneford Ranch Road over the course of the study period. Three of these involved an injury. Of the 16 crashes, 6 involved a left turn, and 5 were at night. None of these accidents involved a 3rd vehicle and two involved a bicycle.

Table 3 – Annual Crash Summary

Year	Quebec Street and Collegiate Drive	Quebec Street and Timberline Road	University Boulevard and Cresthill Lane	University Boulevard and Venneford Ranch Road	Colorado Boulevard and Venneford Ranch Road
2019	0	6	21	5	2
2020	1	5	14	2	3
2021	2	3	14	7	1
2022	0	4	14	3	5
2023	2	3	17	7	3
2024	1	4	9	9	2

School Safety

Students are picked up and dropped off primarily via the parking lot to the south of the school building. A one-way drop-off aisle facilitates traffic, as parents enter the parking lot from the Ptarmigan Trail entrance, drop off students in front of the school, and exit through the same entrance from which they entered. On-street parking is not allowed. However, parents parked still parked along the street to drop off students. Button activated crosswalks are present at the intersection of Timberline Road at Ptarmigan Trail. A crossing guard was present at this intersection.

Eagle Ridge was provided with a questionnaire to provide any feedback related to traffic and school safety. Responses to the questionnaire are provided in **Appendix E**.

Some of the main concerns from the questionnaire are:

- No significant safety concerns were noted.

3. TRIP PROJECTIONS

3.1 Projected Traffic

Douglas County School District (DCSD) is considering a potential school consolidation option that would consolidate Fox Creek Elementary into Eagle Ridge. The consolidation option includes moving 6th Grade to the separate middle school. **Table 4** provides data on student enrollment for Fox Creek and Eagle Ridge without 6th Grade.

Table 4 – School Enrollment

School	Ideal Capacity per DCSD	Maximum Historic Enrollment	2023-2024 Enrollment Count**	Projected 2028-2029 Enrollment**
Fox Creek	506	586	360	309
Eagle Ridge	506	639	472	485
Combined	-	-	-	794

**Enrollment values include Pre-School through 5th Grade. 6th Grade enrollment was assumed to 1/7 of kindergarten through 6th Grade enrollment.

The projected 2028-2029 combined enrollment is 794 students if 6th Grade is not retained at the elementary level. These projected combined enrollment numbers are 24 percent more than the previous maximum Eagle Ridge enrollment.

3.2 Trip Generation

Trip generation calculations were performed based on the number of additional students that will be transferring from Fox Creek to Eagle Ridge. For the purposes of this report, it is assumed the existing 2024 Eagle Ridge traffic and enrollment will see negligible changes by the 2025-2026 school year. Therefore, the trip generation calculations do not focus on the total future enrollment for Eagle Ridge with the addition of Fox Creek students. The trip generation calculations are therefore only based on the Fox Creek existing traffic and enrollment. The trip generation was calculated multiple ways to account for the transfer of Fox Creek students to Eagle Ridge. First the Institute of Transportation Engineers (ITE) Trip Generation web-based application was used to calculate the trip generation for three different types of elementary schools or land use codes (LUC) as follows:

- Public Elementary School (LUC 520)
- Private School K-8 (LUC 530)
- Charter School (LUC 536)

The relocation of students from one elementary school to the other has similarities to each of the three land uses evaluated using the ITE Trip Generation approach, however, this is a unique scenario and therefore the three land uses are not entirely representative of this scenario. A unique approach was therefore evaluated using existing traffic data and field observations at Fox Creek to understand the current traffic demand at the school and how that traffic demand is anticipated to change when relocated to Eagle Ridge. The following considerations were taken into account to determine the anticipated number of trips added to Eagle Ridge for this scenario:

- Calculate the existing ingress and egress traffic for parent drop-off and pick-up in the designated parking areas (parking lot and bus areas) using the existing traffic data collected
- Field observations of street parking adjacent to the school for drop-off and pick-up of students
- Students walking or riding a bike to/from the school using the existing traffic data collected
- Current bus ridership
- New bus ridership eligibility (outside 1 mile radius)
- Anticipated number of students “carpooling” with siblings or classmates after subtracting trips accounted for with existing traffic data, bus ridership, pedestrians/bicyclists and estimated street parking drop-off/pick-up from the student population.
- Reduce enrollment by 1/7th and subtract the 6th grade traffic from the trip generation numbers

The results of these considerations are summarized in the following table:

Table 5 – Fox Creek Existing Traffic Considerations

Peak Hour	Enrollment	Existing Bus Riders	Traffic Data Ingress/Egress	Ped & Bike	Estimated Street Parking	Calculated Carpooling
AM	450	100	163	27	29	131
PM			113	64		144

When the existing traffic at Fox Creek is relocated to Eagle Ridge, additional students will be eligible to take the bus. It is anticipated that about **1/2** of the Fox Creek students will be newly eligible to take the bus to school. Assuming the ridership percentage remains the same as it is currently, ridership for these newly eligible students will also be about **63%** which results in an additional **142** students riding the bus to school for a total of **242** students from Fox Creek taking the bus to Eagle Ridge.

Students who currently walk to Fox Creek are unlikely to walk to Eagle Ridge due to distance and crossing a major roadway, therefore, it is assumed that these students will now be driven to school and count as a new vehicular trip to Eagle Ridge. Taking into account the estimated street parking trips, the ingress/egress trips, pedestrians and bicyclists converted to vehicle trips, anticipated carpooling and the subtraction of new bus ridership, the resulting increase in trip demand for Eagle Ridge is about **237** trips during the morning peak hour and **228** trips during the afternoon peak hour.

A summary of the trip generation comparison is summarized in **Table 6**.

Table 6 – Trip Generation Comparison

ITE LUC	Description	Units	Quant	AM Peak - Generator Peak			PM Peak - Generator Peak		
				Total	Ingress	Egress	Total	Ingress	Egress
-	Existing Data Based Calculation	Students	386	237	118	118	228	114	114
520	Public Elementary School	Students	386	289	156	133	174	80	94
530	Private School (K-8)	Students	386	390	218	171	231	109	123
536	Charter Elementary School	Students	386	413	219	194	278	136	142

3.3 Trip Distribution/Assignment

The trip distribution and assignment was evaluated by first reviewing the attendance boundaries for Fox Creek to get an idea of the population density within the boundary limits. Then the distribution of traffic within the Fox Creek boundary and the directions of approach for arriving at Eagle Ridge was estimated by percentage. Note, a small percentage of traffic was assumed to come from outside the Fox Creek boundaries based on the existing traffic trends. The resulting Trip Distribution percentages are shown in **Figure 10**.

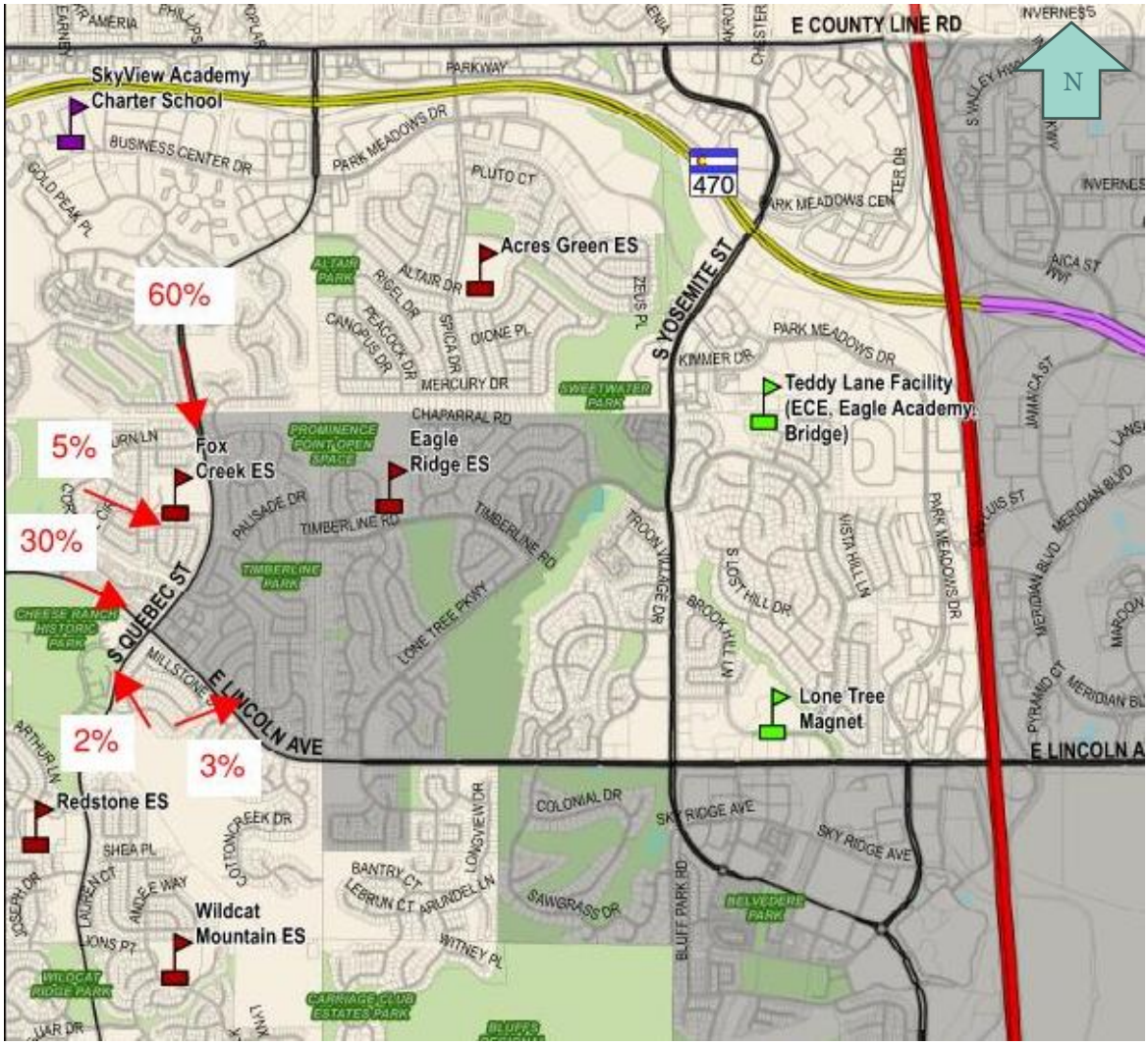


Figure 10 – Trip Distribution

Based on the Trip Distribution, the trips turning movements were then assigned to the key intersections evaluated as a part of this TIS.

- Quebec Street at Collegiate Drive
- Quebec Street at Timberline Road
- Lone Tree Parkway at Timberline Road
- Lone Tree Parkway at Yosemite Street
- University Boulevard at Cresthill Lane
- Timberline Road at Ptarmigan Trail
- Eagle Ridge Access Drive/Deercrest Way at Ptarmigan Trail

The resulting trip assignment is shown in **Figure 11.**

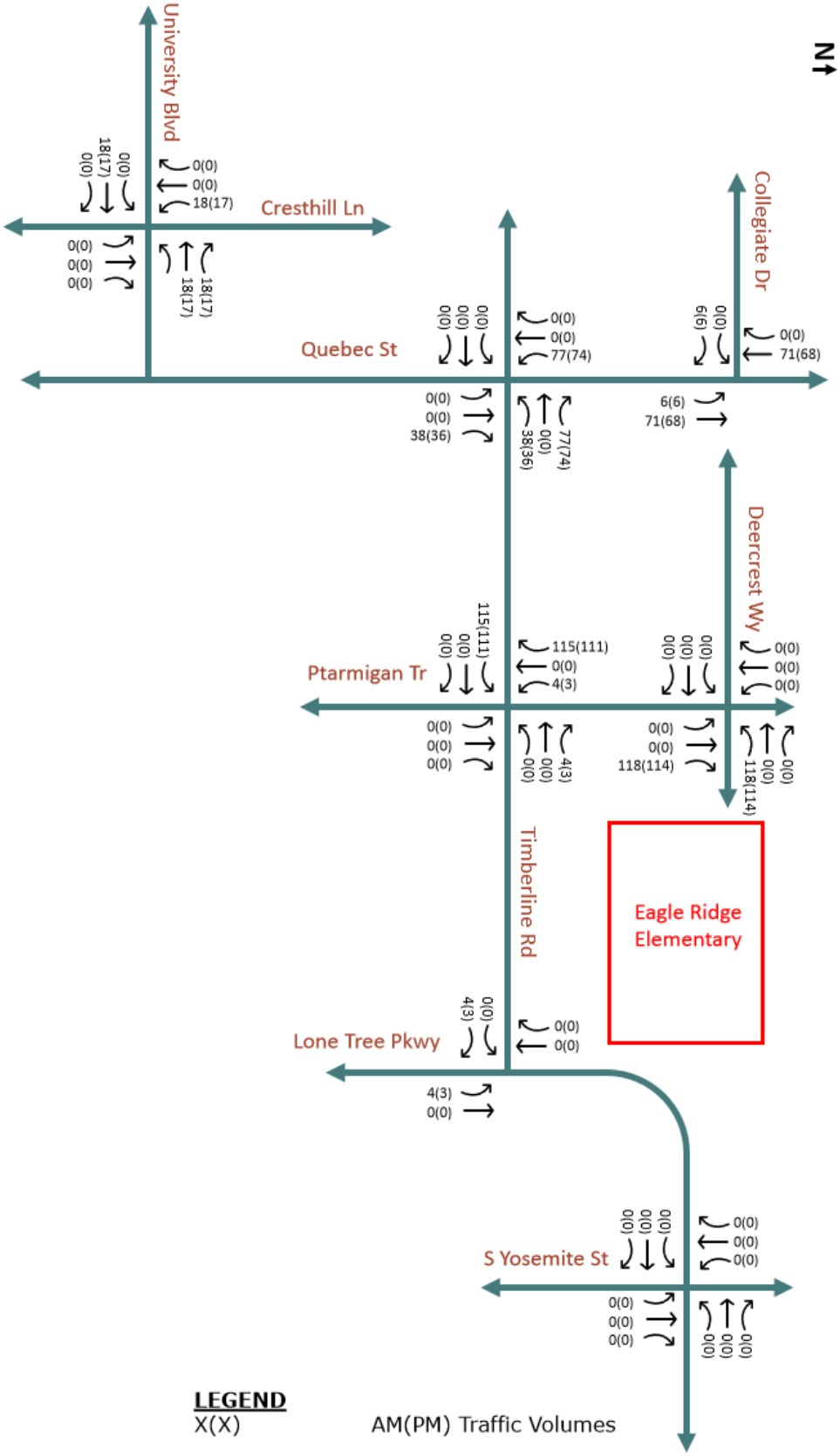


Figure 11 – Trip Assignment

In addition to the new anticipated trips for Fox Creek students transferring to Eagle Ridge, the existing trips to Fox Creek will also be removed for a few of the key intersections. Certain turning movements accounting for the current arrival of drivers to Fox Creek would be reduced in this new scenario. Using the trip distribution and the existing distribution of ingress and egress trips for Fox Creek, the estimated reduction for certain turning movements was estimated. The resulting reductions are summarized in **Table 7**.

Table 7 – Turning Movement Reductions

Intersection	Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Collegiate Dr & Quebec St	AM	67	0	39	0	0	0	67	0	0	0	0	115
	PM	85	0	50	0	0	0	65	0	0	0	0	111
Timberline Rd & Quebec St	AM	0	0	0	0	0	0	0	67	0	0	39	0
	PM	0	0	0	0	0	0	0	65	0	0	50	0
University Blvd & Cresthill Ln	AM	0	-29	0	0	-17	-17	0	0	0	-29	0	0
	PM	0	-28	0	0	-21	-21	0	0	0	-28	0	0

Additional turning movement reductions were estimated for the Eagle Ridge 6th grade traffic that travel to the middle school and no longer travel to Eagle Ridge. As with Fox Creek, it is assumed that the 6th grade class accounts for 1/7th of the traffic. Therefore, the ingress traffic will be reduced by 28 trips during the morning peak and 17 during the afternoon peak while the egress traffic is anticipated to be reduced by 23 trips during the morning peak and 17 during the afternoon peak. These reductions were distributed across the intersections based on the anticipated trip distribution for the traffic within the existing Eagle Ridge boundaries. The resulting reductions are summarized in **Table 8**. These reductions were also incorporated into the Total traffic calculation.

Table 8 – Eagle Ridge Turning Movement Reductions

Intersection	Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lone Tree Pkwy & Yosemite St	AM	-3	0	-3	0	0	0	-4	0	0	0	0	-4
	PM	-3	0	-3	0	0	0	-1	0	0	0	0	-1
Timberline Rd & Lone Tree Pkwy	AM	-6	0	-1	0	0	0	0	0	0	0	0	-8
	PM	-6	0	-1	0	0	0	0	0	0	0	0	-2
Timberline Rd & Ptarmigan Trail	AM	-8	0	0	0	0	-8	0	0	0	-7	0	-4
	PM	-4	0	0	0	0	-2	0	0	0	-7	0	-5
Deercrest Way & Ptarmigan Trail	AM		-3		-11	-2	0			-16	0		
	PM		-1		-12	-1	0			-6	0		
Collegiate Dr & Quebec St	AM	0	0	0	0	0	0	0	-2	0	0	-4	0
	PM	0	0	0	0	0	0	0	-2	0	0	-2	0
Timberline Rd & Quebec St	AM	0	0	0	-2	0	-2	0	0	-4	-4	0	0
	PM	0	0	0	-3	0	-2	0	0	-2	-2	0	0

4. PROJECTED SITE TRAFFIC IMPACTS

4.1 Total Traffic (2028-2029 School Year)

The total anticipated future traffic for the 2028 to 2029 school year for Eagle Ridge with the addition of Fox Creek students was calculated by adding the trip assignment to the existing Eagle Ridge traffic data

and then subtracting the anticipated turning movement reductions. The resulting total traffic is shown in **Figure 12**.

4.2 Projected Level of Service

The capacity analysis for the total projected traffic from the transfer of Fox Creek students to Eagle Ridge was evaluated using Synchro. The resulting LOS and delay are summarized in **Table 9** for both the existing conditions (without Fox Creek traffic) and for the total traffic conditions (with Fox Creek traffic). Project level of service reports from Synchro are included in **Appendix F**.

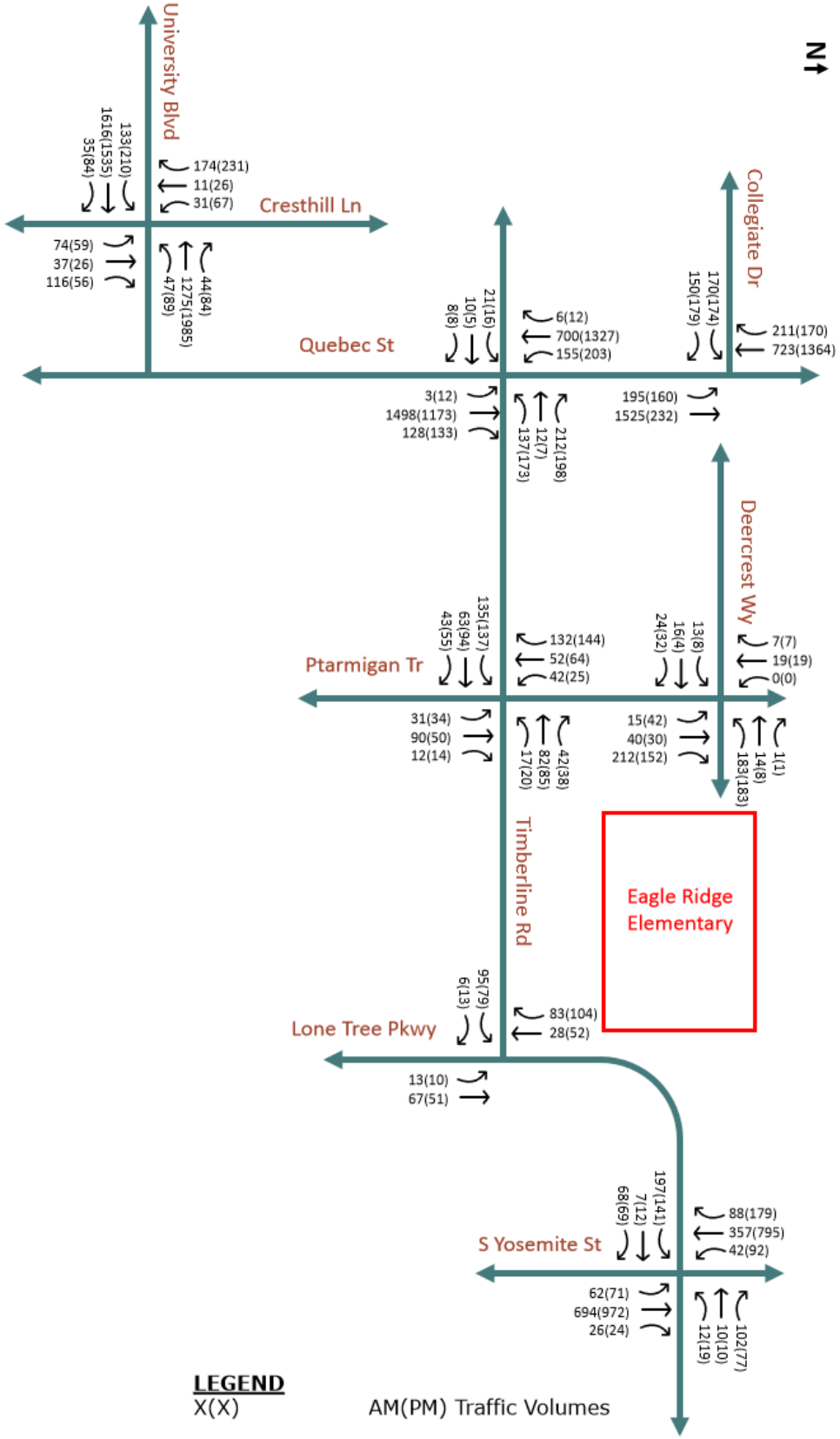


Figure 12 – Total Traffic

Table 9 – LOS and Delay Results

Intersection	Control	Movement	Existing						Total Traffic							
			LOS		Delay (s)		Queue Length (ft)		LOS		Delay (s)		Delay Delta (s)		Queue Length (ft)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Lone Tree Pkwy & Yosemite St	Signal	**Overall**	**B**	**C**	**19.0**	**21.8**	**-**	**-**	**B**	**C**	**19.0**	**21.8**	**-**	**-**	**-**	**-**
		NBL	A	A	8.2	9.3	33	35	A	A	8.2	9.3	0.0	0.0	31	34
		NBT	C	C	21.4	27.7	217	331	C	C	21.4	27.7	0.0	0.0	217	331
		NBR	A	A	0.1	0.1	0	0	A	A	0.1	0.1	0.0	0.0	0	0
		SBL	A	B	8.2	11.4	23	43	A	B	8.2	11.4	0.0	0.0	23	43
		SBT	B	C	17.8	22.8	102	256	B	C	17.8	22.8	0.0	0.0	102	256
		SBR	A	A	4.3	3.6	29	39	A	A	4.3	3.6	0.0	0.0	29	39
		EBL	D	C	39.5	31.6	181	118	D	C	39.0	31.3	-0.5	-0.3	178	116
		EBT	A	A	7.3	7.7	32	25	A	A	7.4	7.8	+0.1	+0.1	32	25
		EBR	A	A	7.3	7.7	32	25	A	A	7.4	7.8	+0.1	+0.1	32	25
		WBL	A	A	7.9	9.5	36	47	A	A	7.9	9.5	0.0	0.0	36	47
		WBT	A	A	7.9	9.5	36	47	A	A	7.9	9.5	0.0	0.0	36	47
		WBR	A	A	7.9	9.5	36	47	A	A	7.9	9.5	0.0	0.0	36	47
Timberline Rd & Lone Tree Pkwy	Unsignalized (TWSC or AWSC)	**Overall**			**-**	**-**	**-**	**-**			**-**	**-**	**-**	**-**	**-**	**-**
		NBL	A	A	7.6	7.7	0	0	A	A	7.6	7.7	0.0	0.0	0	0
		NBT	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		NBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		SBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		SBT	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		SBR	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		EBL	B	B	11.2	10.5	18	10	B	B	11.1	10.5	-0.1	0.0	16	10
		EBT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		EBR	A	A	8.9	9.0	0	0	A	A	8.9	9.0	0.0	0.0	0	2
		WBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		WBT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		WBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Timberline Rd & Ptarmigan Trail	Unsignalized (TWSC or AWSC)	**Overall**			**-**	**-**	**-**	**-**			**-**	**-**	**-**	**-**	**-**	**-**
		NBL	B	B	10.4	10.5	24	22	B	B	13.0	12.5	+2.6	+2.0	30	26
		NBT	B	B	10.4	10.5	24	22	B	B	13.0	12.5	+2.6	+2.0	30	26
		NBR	B	B	10.4	10.5	24	22	B	B	13.0	12.5	+2.6	+2.0	30	26
		SBL	B	B	11.0	11.1	32	32	D	C	26.4	19.2	+15.4	+8.1	156	100
		SBT	B	B	11.0	11.1	32	32	D	C	26.4	19.2	+15.4	+8.1	156	100
		SBR	B	B	11.0	11.1	32	32	D	C	26.4	19.2	+15.4	+8.1	156	100
		EBL	A	A	9.7	9.7	4	4	B	B	14.2	13.8	+4.5	+4.1	30	30
		EBT	A	B	9.9	10.8	14	24	B	B	11.6	12.5	+1.7	+1.7	18	30
		EBR	A	B	9.9	10.8	14	24	B	B	11.6	12.5	+1.7	+1.7	18	30
		WBL	A	A	9.5	9.6	2.0	2.0	B	B	11.0	10.8	+1.5	+1.2	4	4.0
		WBT	B	B	10.6	10.6	22.0	22.0	B	B	13.2	12.7	+2.6	+2.1	28.0	26.0
		WBR	B	B	10.6	10.6	22.0	22.0	B	B	13.2	12.7	+2.6	+2.1	28.0	26.0

Intersection	Control	Movement	Existing						Total Traffic							
			LOS		Delay (s)		Queue Length (ft)		LOS		Delay (s)		Delay Delta (s)		Queue Length (ft)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Deercrest Way & Ptarmigan Trail	Unsignalized (TWSC or AWSC)	**Overall**			-	-	-	-			-	-	-	-	-	-
		NBL	A	A	7.4	7.5	2	4	A	A	7.4	7.5	0.0	0.0	2	4
		NBT	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		NBR	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		SBL	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		SBT	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		SBR	A	A	0.0	0.0	0	0	A	A	0.0	0.0	0.0	0.0	0	0
		EBL	B	A	11.0	10.0	12	8	B	B	11.9	10.4	+0.9	+0.4	12	8
		EBT	B	A	11.0	10.0	12	8	B	B	11.9	10.4	+0.9	+0.4	12	8
		EBR	B	A	11.0	10.0	12	8	B	B	11.9	10.4	+0.9	+0.4	12	8
		WBL	B	B	14.3	14.7	28	24	E	D	39.1	33.2	+24.8	+18.5	166	118
		WBT	B	B	14.3	14.7	28	24	E	D	39.1	33.2	+24.8	+18.5	166	118
		WBR	B	B	14.3	14.7	28	24	E	D	39.1	33.2	+24.8	+18.5	166	118
University Blvd & Cresthill Ln	Signal	**Overall**	**D**	**F**	**54.8**	**104.4**	-	-	**D**	**F**	**54.3**	**103.8**	-	-	-	-
		NBL	C	C	24.9	24.2	75	65	C	C	24.9	24.2	0.0	0.0	75	65
		NBT	B	B	19.4	15.3	96	62	B	B	19.4	15.3	0.0	0.0	96	62
		NBR	B	B	19.4	15.3	96	62	B	B	19.4	15.3	0.0	0.0	96	62
		SBL	C	C	23.5	25.6	48	73	C	C	23.2	25.1	-0.3	-0.5	39	64
		SBT	C	C	32.7	33.7	23	36	C	C	32.7	33.7	0.0	0.0	23	36
		SBR	A	A	5.8	9.2	54	0	A	A	5.8	9.2	0.0	0.0	54	0
		EBL	E	E	55.5	58.4	95	140	E	E	55.5	58.4	0.0	0.0	95	140
		EBT	E	E	68.0	61.9	719	683	E	E	66.7	60.6	-1.3	-1.3	711	675
		EBR	E	E	68.0	61.9	719	683	E	E	66.7	60.6	-1.3	-1.3	711	675
		WBL	E	E	61.9	68.7	88	143	E	E	61.9	68.7	0.0	0.0	88	143
		WBT	D	F	54.2	183.1	512	989	D	F	54.3	181.8	+0.1	-1.3	513	985
		WBR	A	A	0.3	3.6	0	25	A	A	0.3	3.0	0.0	-0.6	0	20
Collegiate Dr & Quebec St	Signal	**Overall**	**B**	**B**	**13.3**	**18.5**	-	-	**B**	**C**	**13.7**	**25.2**	-	-	-	-
		NBL	A	A	3.3	6.2	17	17	A	B	7.0	17.8	+3.7	+11.6	29	54
		NBT	A	A	6.6	3.1	160	10	A	A	6.6	3.2	0.0	+0.1	151	13
		NBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		SBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		SBT	B	C	16.5	20.4	137	277	B	C	16.7	21.8	+0.2	+1.4	167	271
		SBR	B	C	16.5	20.4	137	277	B	C	16.7	21.8	+0.2	+1.4	167	271
		EBL	C	C	33.4	33.1	85	73	D	E	45.7	56.9	+12.3	+23.8	136	136
		EBT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		EBR	A	B	6.1	10.6	0	0	A	C	8.0	22.5	+1.9	+11.9	0	17
		WBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		WBT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		WBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection	Control	Movement	Existing						Total Traffic							
			LOS		Delay (s)		Queue Length (ft)		LOS		Delay (s)		Delay Delta (s)		Queue Length (ft)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Timberline Rd & Quebec St	Signal	**Overall**	**B**	**B**	**19.5**	**19.4**	**-**	**-**	**D**	**C**	**44.3**	**23.7**	**+24.8**	**+4.3**	**-**	**-**
		NBL	A	A	6.3	6.5	4	8	A	A	6.3	6.6	0.0	+0.1	4	8
		NBT	D	C	47.6	24.9	675	398	E	C	67.7	27.5	+20.1	+2.6	749	451
		NBR	D	C	47.6	24.9	675	398	E	C	67.7	27.5	+20.1	+2.6	749	451
		SBL	A	B	6.6	11.8	20	37	B	C	16.5	34.0	+9.9	+22.2	65	173
		SBT	B	C	16.7	20.5	164	354	B	B	16.1	19.2	-0.6	-1.3	165	359
		SBR	B	C	16.7	20.5	164	354	B	B	16.1	19.2	-0.6	-1.3	165	359
		EBL	C	C	27.0	26.9	29	23	C	C	27.0	26.9	0.0	0.0	29	23
		EBT	B	B	18.7	17.1	21	16	B	B	18.7	17.1	0.0	0.0	21	16
		EBR	B	B	18.7	17.1	21	16	B	B	18.7	17.1	0.0	0.0	21	16
		WBL	C	D	31.5	35.8	100	131	C	D	34.2	40.3	+2.7	+4.5	132	162
		WBT	C	C	26.3	26.1	20	13	C	C	26.3	26.1	0.0	0.0	20	13
		WBR	A	A	6.2	6.2	36	24	A	A	8.5	7.8	+2.3	+1.6	58	36

4.3 Mitigation

Traffic Warrant Analysis

The intersections of Timberline Road at Lone Tree Parkway, Timberline Road at Ptarmigan Trail, and Deercrest Way at Ptarmigan Trail were analyzed for potential signal needs. Warrants 3 (Peak Hour) and 7 (Crash experience) from the Manual on Uniform Traffic Control Devices (MUTCD) were used for this study.

Based on the analysis, it was determined that none of these intersections met either warrant for signal installation.

Auxiliary Lane Analysis

Right turn lanes were evaluated for the intersections of Lone Tree Parkway at Yosemite Street, Quebec Street at Collegiate Drive, Quebec Street at Timberline Road, and University Boulevard at Cresthill Lane. Doulgas County Roadway Design Standards refer to the Code of Colorado Regulations, State Highway Access Code for the design and installation recommendations. A right-turn lane is recommended when a threshold of 25 right turning vehicles is exceeded on a Non-Rural Arterial roadway with a posted speed limit greater than 40 miles per hour.

Based on the analysis, it was determined that southbound Quebec Street at Collegiate Drive meets the criteria to warrant the construction of a right-turn lane. The trip generation analysis projects that 211 vehicles make this turning movement in the morning peak hour, and 170 vehicles make this turning movement in the evening peak hour. This is a significant increase from the existing traffic counts of 96 vehicles and 59 vehicles turning right in the morning and afternoon peak hours respectively. Therefore, a right turn lane should be considered. This turn lane should have a minimum of 275 feet of storage with a 165-foot taper, for a total deceleration length of 440 feet. It is noted that the intersection warrants a right-turn lane without considering the increased traffic from the school consolidation.

It should be noted that there are numerous high-volume streets that intersect with Quebec Street between Collegiate Drive and Park Meadows drive that do not have dedicated right-turn lanes. Therefore, there may not be a precedent for a right-turn lane here. Douglas County should be consulted on whether this is appropriate.

Site Analysis

Based on site observations and feedback from the Eagle Ridge Administration, Eagle Ridge faces challenges from the following:

- Congestion on Ptarmigan Trail
- Illegal parking on Ptarmigan Trail

Illegally parked vehicles obstruct the width of the road and disrupt sight lines. Eagle Ridge administration should consider asking for further parking enforcement. However, it should be considered that enforcing these no parking zones could lead to longer queues on Ptarmigan trail.

5. CONCLUSIONS/RECOMMENDATIONS

This Traffic Impact Study addresses existing traffic patterns and potential traffic challenges at Eagle Ridge Elementary, while considering the anticipated increase in traffic due to possible consolidations with Fox Creek Elementary while moving 6th grade students to a middle school.

Traffic will increase with additional enrollment, but additional bus service will be offered, limiting the impact of the increased enrollment. Consolidating school populations at Eagle Ridge would cause the

school population to more than double its previous historical maximum enrollment. To address existing and potential future traffic challenges the following mitigation measures are recommended:

- Partner with the Church of Jesus Christ of Latter-Day Saints to utilize their parking lot as an additional parking area for student pickup to limit on-street parking.

Appendix A Site Observation Notes

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

TRAFFIC OBSERVATION REPORT

Project Name	DCSD HR TIS	**Project No.**	1124175
Observer	Derek Williams, EI		
Location	Eagle Ridge Elementary School		
Time	7:45-9:15	**AM**	

DATE	11/15/2024					
M	**T**	**W**	**Th**	**F**	**S**	**S**

Queueing Data

Start Time: 8:20 AM

End Time: 8:42 AM

Maximum Queueing Length: 300 feet

Total Storage Length Available: 700 feet

Comments:
Most vehicles queued in the drop-off loop between 8:20 and 8:40. Vehicles seemed to move quickly through the queue and the maximum queue length did not exceed 300 feet. The queue dissipated shortly after 8:40. Parents continued dropping off students however vehicles were more dispersed and did not have to queue.

On-Street Parking Locations and Availability

Comments:
Many parents parked along Ptarmigan Trail just north of the parking lot entrance No Parking signs are posted on both sides of Ptarmigan trail near the school. Some parents also parked on Deercrest Way across from the parking lot entrance.

Crosswalk Locations and Usage

Comments:
The crosswalks at intersection of Ptarmigan Trail and Deercrest Way/school entrance had the most pedestrian traffic. Many parents and students crossed at the Ptarmigan Trail/Timberline Road intersection which has 4-way crossing. This intersection has two sets of button activated, red flashers for pedestrians. Both intersections had crossings guards from approximately 8:15 to 8:40.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

Roadway Characteristics

Speed Limit(s) and Location(s):
Ptarmigan Trail has a posted speed limit of 25 mph. Timberline Road has a posted speed limit of 30 mph. School zone flashers reduce the speed to 20 mph on both streets.

Signage:
School zone flashers are used on Ptarmigan trail and Timberline Rd. "No Parking Except for Sundays and Holiday" signs are posted on both sides of Ptarmigan Trail near the school.

Bike Lanes:
Bike lanes are provided in both directions on Timberline Rd.

Other Comments:
There are two pull-offs along Timberline Rd at the school that are used for school buses only. Timberline road is a 2-lane road separated with a raised median near the school. Both intersections on Ptarmigan Trail near the school are all-way stop-controlled.

Sight Visibility Challenges

Comments:
No sight visibility conflict areas were observed.

Congestion Areas

Comments:
There was heavy congestion along Ptarmigan Trail from 8:20 to 8:35 as vehicles were arriving to the school. Vehicles were backed-up past the intersection at Timberline Rd. Most vehicles queued at the intersection were on Ptarmigan Trail approaching the school. At one point, traffic leaving the school was backed-up at the Timberline Rd intersection and the line of traffic reached the intersection at the parking lot entrance.

General Traffic Observations

Comments:
Many parents parked in the church parking lot across from the school entrance to drop-off students.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

TRAFFIC OBSERVATION REPORT

Project Name	DCSD HR TIS	**Project No.**	1124175
Observer	Derek Williams, EI		
Location	Eagle Ridge Elementary School		
Time	2:45-4:15	**PM**	

DATE	11/15/2024					
M	**T**	**W**	**Th**	**F**	**S**	**S**

Queueing Data

Start Time: 3:15 PM

End Time: 3:45 PM

Maximum Queueing Length: 600 feet

Total Storage Length Available: 700 feet

Comments:
A few vehicles began queueing before 3:00, however most traffic began entering the queue around 3:15. At 3:20 the queuing length was about half of the maximum queueing length. The queue reached the maximum length of about 600 feet at approximately 3:30. At 3:45 the queue dissipated.

On-Street Parking Locations and Availability

Comments:
Many parents were parking along Ptarmigan Trail just north of the parking lot entrance. Both sides of the street filled up. No Parking signs are posted on both sides of Ptarmigan trail near the school. Some parents also parked on Deercrest Way across from the parking lot entrance/exit.

Crosswalk Locations and Usage

Comments:
Similar to the morning, most parents and students crossed at the intersection of Ptarmigan Trail and Deercrest Way/school entrance. Many parents and students also crossed at the Ptarmigan Trail/Timberline Road intersection which has 4-way crossing. This intersection has two sets of button activated, red flashers for pedestrians.

DIBBLE

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

Roadway Characteristics

Speed Limit(s) and Location(s):
Ptarmigan Trail has a posted speed limit of 25 mph. Timberline Road has a posted speed limit of 30 mph. School zone flashers reduce the speed to 20 mph on both streets.

Signage:
School zone flashers are used on Ptarmigan trail and Timberline Rd. "No Parking Except for Sundays and Holiday" signs are posted on both sides of Ptarmigan Trail near the school.

Bike Lanes:
Bike lanes are provided in both directions on Timberline Rd.

Other Comments:
There are two pull-offs along Timberline Rd at the school that are used for school buses only. Timberline road is a 2-lane road separated with a raised median near the school. Both intersections on Ptarmigan Trail near the school are all-way stop-controlled.

Sight Visibility Challenges

Comments:
No sight visibility conflict areas were observed.

Congestion Areas

Comments:
At 3:35, when most vehicles were leaving the school, Ptarmigan Trail become heavily congested approaching the Timberline Road intersection. Vehicles queued at the intersection backed up to the school entrance/exit at Deercrest Way. This intersection also became heavily congested with vehicles leaving the school along with vehicles that were parked on Deercrest Way and Ptarmigan Trial. At 3:40 the congestion at the parking lot entrance/exit and Deercrest Way cleared.

General Traffic Observations

Comments:
Some parents parked in the church parking lot across from the school entrance/exit to pick up students.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

TRAFFIC OBSERVATION REPORT

Project Name	DCSD HR TIS	**Project No.**	1124175
Observer	Derek Williams, EI		
Location	Fox Creek Elementary School		
Time	7:45-9:15	**AM**	
DATE	11/18/2024		

M **T** **W** **Th** **F** **S** **S**

Queueing Data

Start Time: 8:00 AM

End Time: 8:37 AM

Maximum Queueing Length: 1400 feet

Total Storage Length Available: 530 feet

Comments:
Parents began queueing at 8:00 with arriving school traffic picking up around 8:10. At 8:15 the queue had reached the available storage length and vehicles started queuing on Collegiate Drive in front of the school. At the maximum queue length, vehicles were backed up to the intersection at Collegiate Drive and Quebec Street. At 8:30, arriving vehicles slowed while the queue diminished to the back into the parking lot. At 8:37 the queue dissipated.

On-Street Parking Locations and Availability

Comments:
Collegiate Drive has parking lanes on both sides between the parking lot entrance and Harvard Drive. Parents used the westbound parking lane to queue when the spilled onto the Collegiate Drive. The eastbound parking lane was not utilized. A few parents parked on Harvard Drive between Yale and Collegiate Drive to drop off students.

Crosswalk Locations and Usage

Comments:
Most parents and students used the two crosswalks at Collegiate Drive and Harvard Drive. Some pedestrians used the crosswalks at Collegiate Drive and the parking lot entrance. No pedestrians were observed crossing at the traffic signal at Collegiate Drive and Quebec Street. Overall, there was little pedestrian traffic going to the school.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

Roadway Characteristics

Speed Limit(s) and Location(s):
Collegiate Drive has a posted speed limit of 25 mph. The speed limit is reduced to 15 mph in the school zone when flashers are activated.

Signage:
The drop-off area is signed as no parking. Collegiate Drive parking lanes are signed as loading zone 7:30AM-4:00PM, Mon-Fri between Harvard Drive and the parking lot entrance. No parking signs are present between Quebec Street and Harvard Drive. School zone lights are located on Collegiate Drive.

Bike Lanes:
Bike lanes are not provided on Collegiate Drive. A bike lane is provided in either direction on Quebec Street near the school.

Other Comments:
The bus drop-off lane is located off of Collegiate Drive and is unsigned. A few vehicles used the bus lane to access a reserved parking area. The parking lot entrance is a single lane while the exit is two lanes, unstriped.

Sight Visibility Challenges

Comments:
Vehicles queued along the westbound lane of Collegiate drive could create visibility challenges for vehicles leaving the bus lane.

Congestion Areas

Comments:
Collegiate Drive became congested between 8:15 and 8:35. At one point, arriving vehicles were backed to the intersection at Quebec Street, although this did not have any significant impacts to traffic at the signal. A heavy stream of vehicles were leaving the school between 8:25 and 8:35. During with time Collegiate Drive was heavily congested approaching the Quebec Street signal. At one point, leaving vehicles were backed to the school entrance/exit for a short period of time.

General Traffic Observations

Comments:
Vehicles were observed to turn into the parking lot using the exit when the queue was extended to the road. Most traffic arrived from Quebec Street, turning onto Collegiate Drive from both directions. When leaving, most vehicles turned back onto Quebec Street, with the majority of vehicles making left turn. The left turn arrow was green for approximately 25 seconds, which allowed most vehicles to turn off Collegiate Drive when most congested.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

TRAFFIC OBSERVATION REPORT

Project Name	DCSD HR TIS	**Project No.**	1124175
Observer	Derek Williams, EI		
Location	Fox Creek Elementary School		
Time	2:45-9:15	**PM**	

DATE 11/18/2024

M T W Th F S S

Queueing Data

Start Time: 3:00 PM

End Time: 3:45 PM

Maximum Queueing Length: 1,400 feet

Total Storage Length Available: 530 feet

Comments:
Parents began queueing at 3:00. School traffic started increasing at 3:05 and by 3:12 the queue reached the available storage length. Arriving vehicles began queueing in the parking lane along Collegiate Drive. At 3:30 the queue backed up to the Quebec Street intersection. Queueing did not extend onto Quebec Street. At 3:30, students were let out and the queue began moving. The queue completely cleared at 3:45.

On-Street Parking Locations and Availability

Comments:
Collegiate Drive has parking lanes on both sides between the parking lot entrance and Harvard Drive. Parents used the westbound parking lane for queueing. Many parents parked in the eastbound parking lane. A few parents parked on Harvard Drive between Yale and Collegiate Drive to drop off students.

Crosswalk Locations and Usage

Comments:
Most parents and students used the two crosswalks at Collegiate Drive and Harvard Drive. Some pedestrians used the crosswalks at Collegiate Drive and the parking lot entrance. A few pedestrians crossed at the traffic signal at Collegiate Drive and Quebec Street. Overall, there was little pedestrian traffic leaving the school as the majority of students used pick-up.

2696 S. Colorado Blvd., Ste. 330
Denver, CO 80222
Ph: (303) 872-5756

Roadway Characteristics

Speed Limit(s) and Location(s):
Collegiate Drive has a posted speed limit of 25 mph. The speed limit is reduced to 15 mph in the school zone when flashers are activated.

Signage:
The drop-off area is signed as no parking. Collegiate Drive parking lanes are signed as loading zone 7:30AM-4:00PM Mon-Fri between Harvard Drive and the parking lot entrance. No parking signs between Quebec Street and Harvard Drive. School flashers are located on Collegiate Drive.

Bike Lanes:
Bike lanes are not provided on Collegiate Drive. A bike lane is provided in either direction on Quebec Street near the school.

Other Comments:
The bus drop-off lane is located off of Collegiate Drive and is unsigned. A few vehicles used the bus lane to access a reserved parking area. The parking lot entrance is a single lane while the exit is two lanes, unstriped.

Sight Visibility Challenges

Comments:
Vehicles queued along the westbound lane of Collegiate drive could create visibility challenges for vehicles leaving the bus lane.

Congestion Areas

Comments:
Most vehicles were leaving the school between 3:30 and 3:40. During with time Collegiate Drive was heavily congested approaching the Quebec Street signal. At one point, leaving vehicles were backed to the school entrance/exit for a short period of time.

General Traffic Observations

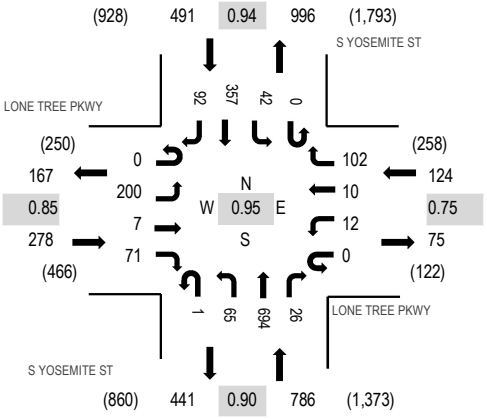
Comments:
Vehicles were observec to make U-turns at the parking lot entrance to park in the eastbound parking lane. Most traffic arrived from Quebec Street, turning onto Collegiate Drive from both directions. When leaving, most vehicles turned back onto Quebec Street, with the majority of vehicles making left turn. When Collegiate Drive was heavily congested, 14 vehicles were counted turning left during the green arrow phase. This had cleared most of the congestion on Collegiate Drive.

Appendix B Traffic Volume Counts

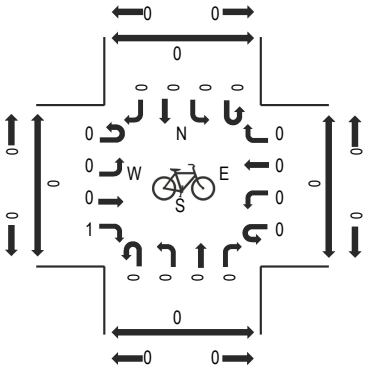
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 27 S YOSEMITE ST & LONE TREE PKWY AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

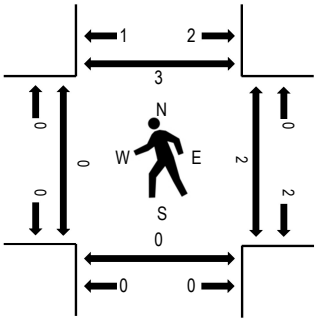
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

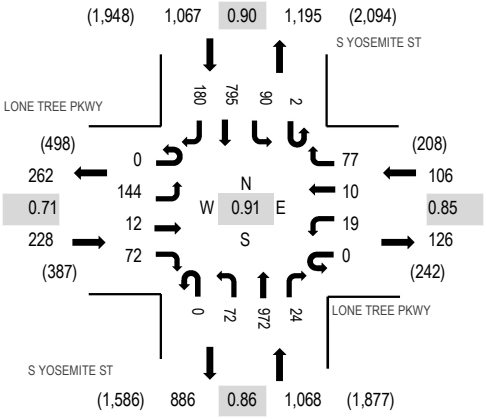
Traffic Counts - Motorized Vehicles

Interval Start Time	LONE TREE PKWY Eastbound				LONE TREE PKWY Westbound				S YOSEMITE ST Northbound				S YOSEMITE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	44	0	8	0	7	5	38	0	6	144	6	0	1	74	13	346	1,622	0	0	1	0
7:45 AM	0	54	1	21	0	4	5	27	0	6	181	3	0	9	95	14	420	1,679	0	0	0	0
8:00 AM	0	47	1	19	0	3	2	26	0	13	189	13	0	12	86	30	441	1,670	0	0	0	1
8:15 AM	0	35	2	16	0	4	2	26	0	35	178	6	0	10	79	22	415	1,535	0	0	0	2
8:30 AM	0	64	3	15	0	1	1	23	1	11	146	4	0	11	97	26	403	1,403	0	2	0	0
8:45 AM	0	42	1	19	0	3	0	26	1	5	181	3	0	10	102	18	411		0	0	0	0
9:00 AM	0	27	2	13	0	7	0	18	0	5	117	3	0	16	81	17	306		0	3	1	1
9:15 AM	0	25	0	7	0	6	0	24	0	4	111	1	0	4	91	10	283		0	1	2	0
Count Total	0	338	10	118	0	35	15	208	2	85	1,247	39	0	73	705	150	3,025		0	6	4	4
Peak Hour	0	200	7	71	0	12	10	102	1	65	694	26	0	42	357	92	1,679		0	2	0	3

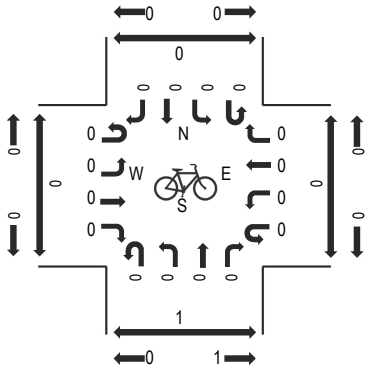
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 27 S YOSEMITE ST & LONE TREE PKWY PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:30 PM - 04:30 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

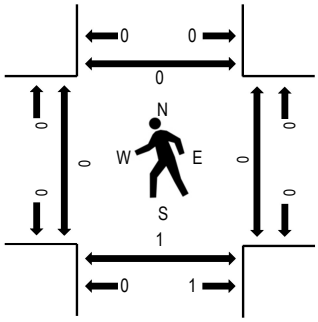
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

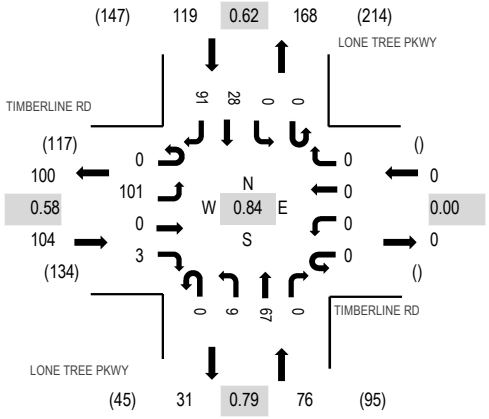
Traffic Counts - Motorized Vehicles

Interval Start Time	LONE TREE PKWY Eastbound				LONE TREE PKWY Westbound				S YOSEMITE ST Northbound				S YOSEMITE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	0	29	0	6	0	6	3	21	0	9	149	3	0	20	163	26	435	1,951	0	5	2	1
2:45 PM	0	27	3	6	0	5	2	17	0	7	186	3	0	23	143	39	461	2,033	0	0	0	1
3:00 PM	0	28	3	21	0	5	4	21	0	16	194	6	0	19	182	41	540	2,192	0	0	0	0
3:15 PM	0	26	3	7	0	3	0	15	0	38	186	12	0	21	153	51	515	2,332	0	0	0	1
3:30 PM	0	35	5	20	0	5	0	17	0	19	174	4	0	20	177	41	517	2,469	0	0	0	0
3:45 PM	0	53	5	23	0	6	4	19	0	19	246	5	0	16	179	45	620		0	0	1	0
4:00 PM	0	34	1	16	0	3	1	20	0	12	292	8	0	26	222	45	680		0	0	0	0
4:15 PM	0	22	1	13	0	5	5	21	0	22	260	7	2	28	217	49	652		0	0	0	0
Count Total	0	254	21	112	0	38	19	151	0	142	1,687	48	2	173	1,436	337	4,420		0	5	3	3
Peak Hour	0	144	12	72	0	19	10	77	0	72	972	24	2	90	795	180	2,469		0	0	1	0

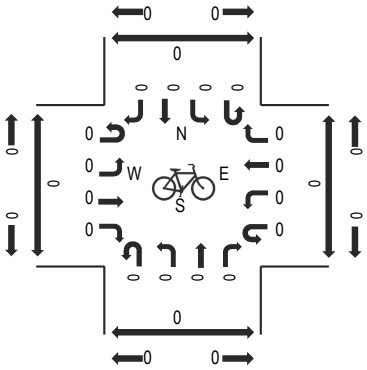
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 28 LONE TREE PKWY & TIMBERLINE RD AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

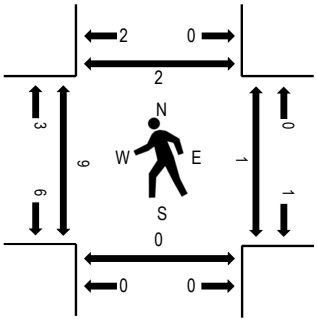
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

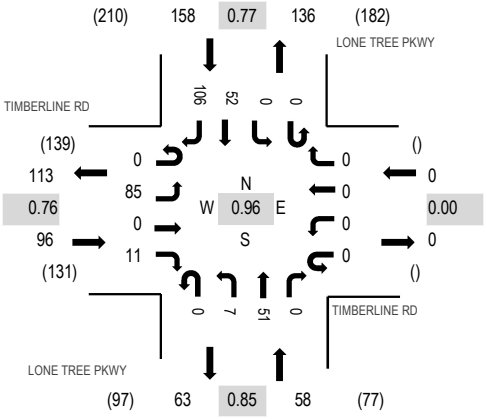
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				LONE TREE PKWY Northbound				LONE TREE PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	16	0	0	0	0	0	0	0	2	22	0	0	0	2	11	53	299	2	1	0	2
8:00 AM	0	23	0	1	0	0	0	0	0	1	18	0	0	0	10	22	75	293	0	0	0	0
8:15 AM	0	18	0	0	0	0	0	0	0	4	12	0	0	0	9	39	82	248	0	0	0	0
8:30 AM	0	44	0	2	0	0	0	0	0	2	15	0	0	0	7	19	89		7	0	0	0
8:45 AM	0	19	0	0	0	0	0	0	0	2	13	0	0	0	7	6	47		3	0	0	0
9:00 AM	0	10	0	1	0	0	0	0	0	0	4	0	0	0	6	9	30		8	1	0	0
Count Total	0	130	0	4	0	0	0	0	0	11	84	0	0	0	41	106	376		20	2	0	2
Peak Hour	0	101	0	3	0	0	0	0	0	9	67	0	0	0	28	91	299		9	1	0	2

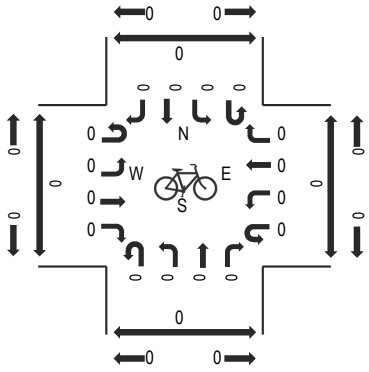
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 28 LONE TREE PKWY & TIMBERLINE RD PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

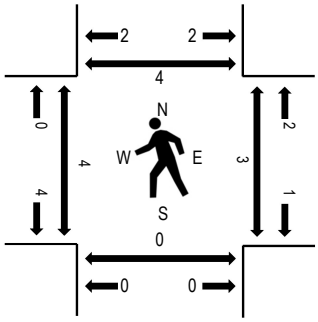
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

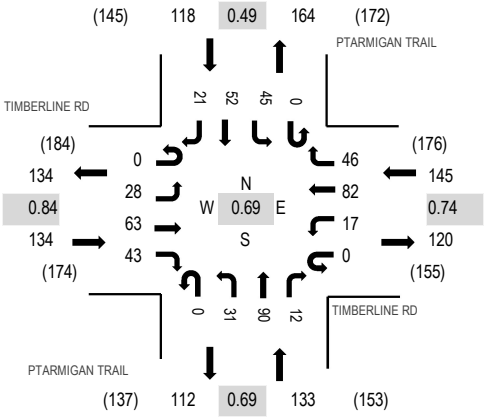
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				LONE TREE PKWY Northbound				LONE TREE PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:45 PM	0	10	0	1	0	0	0	0	0	3	8	0	0	0	10	9	41	276	2	0	0	0
3:00 PM	0	15	0	1	0	0	0	0	0	4	13	0	0	0	17	23	73	312	0	1	0	1
3:15 PM	0	10	0	7	0	0	0	0	0	3	10	0	0	0	11	40	81	304	2	0	0	0
3:30 PM	0	32	0	2	0	0	0	0	0	0	13	0	0	0	12	22	81		0	1	0	1
3:45 PM	0	28	0	1	0	0	0	0	0	0	15	0	0	0	12	21	77		2	1	0	2
4:00 PM	0	21	0	3	0	0	0	0	0	1	7	0	0	0	20	13	65		0	0	0	0
Count Total	0	116	0	15	0	0	0	0	0	11	66	0	0	0	82	128	418		6	3	0	4
Peak Hour	0	85	0	11	0	0	0	0	0	7	51	0	0	0	52	106	312		4	3	0	4

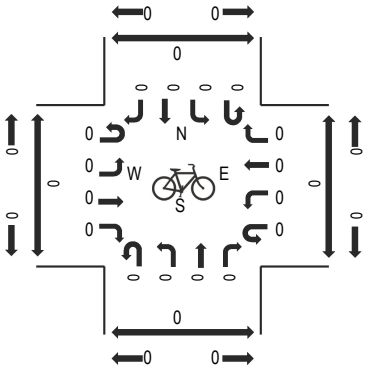
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 29 PTARMIGAN TRAIL & TIMBERLINE RD AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

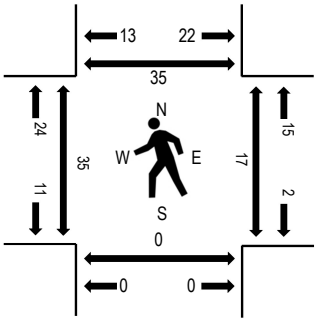
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

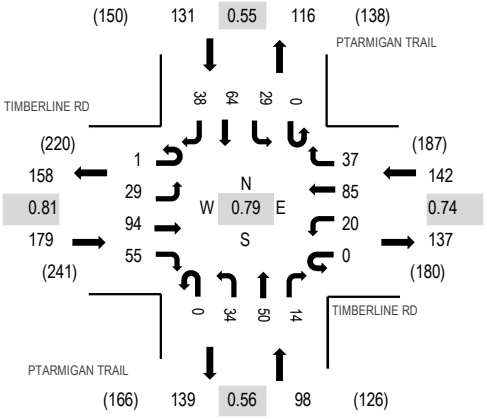
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				PTARMIGAN TRAIL Northbound				PTARMIGAN TRAIL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	6	15	6	0	0	17	7	0	10	10	3	0	4	5	2	85	530	2	0	0	2
8:00 AM	0	2	13	14	0	1	20	7	0	6	13	2	0	7	2	0	87	518	4	0	0	4
8:15 AM	0	13	13	12	0	4	22	23	0	4	40	4	0	11	12	7	165	476	20	5	0	16
8:30 AM	0	7	22	11	0	12	23	9	0	11	27	3	0	23	33	12	193		9	12	0	13
8:45 AM	0	4	12	6	0	2	13	0	0	6	2	2	0	5	11	10	73		2	0	0	2
9:00 AM	0	0	14	4	0	1	15	0	0	6	2	2	0	0	1	0	45		5	0	0	2
Count Total	0	32	89	53	0	20	110	46	0	43	94	16	0	50	64	31	648		42	17	0	39
Peak Hour	0	28	63	43	0	17	82	46	0	31	90	12	0	45	52	21	530		35	17	0	35

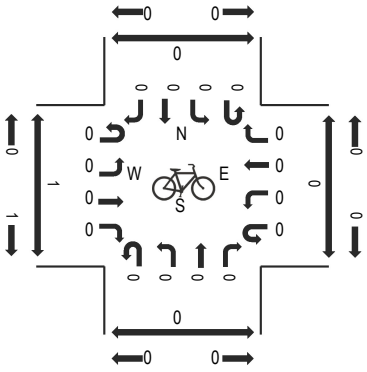
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 29 PTARMIGAN TRAIL & TIMBERLINE RD PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

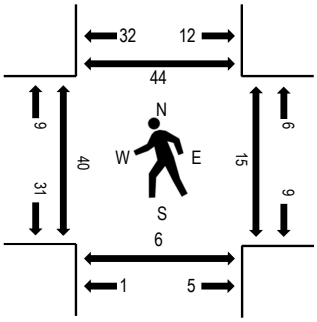
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

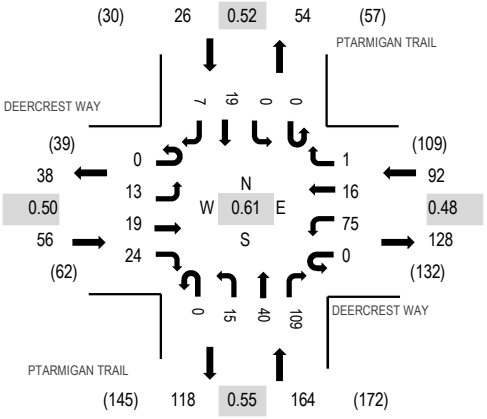
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				PTARMIGAN TRAIL Northbound				PTARMIGAN TRAIL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:45 PM	0	2	12	9	0	0	19	3	0	8	8	1	0	1	0	1	64	493	0	0	0	0
3:00 PM	0	9	25	13	0	1	19	5	0	7	14	3	0	1	5	2	104	550	3	1	0	2
3:15 PM	0	16	25	11	0	7	21	20	0	11	28	5	0	1	4	3	152	536	11	6	0	16
3:30 PM	0	4	26	25	0	10	20	10	0	6	7	1	0	15	35	14	173		24	6	4	22
3:45 PM	1	0	18	6	0	2	25	2	0	10	1	5	0	12	20	19	121		2	2	2	4
4:00 PM	0	4	22	13	0	1	18	4	0	8	1	2	0	5	4	8	90		3	1	0	1
Count Total	1	35	128	77	0	21	122	44	0	50	59	17	0	35	68	47	704		43	16	6	45
Peak Hour	1	29	94	55	0	20	85	37	0	34	50	14	0	29	64	38	550		40	15	6	44

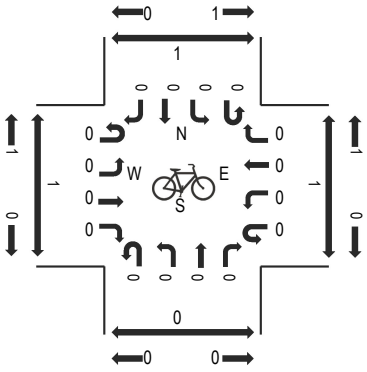
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 30 PTARMIGAN TRAIL & DEERCREST WAY AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

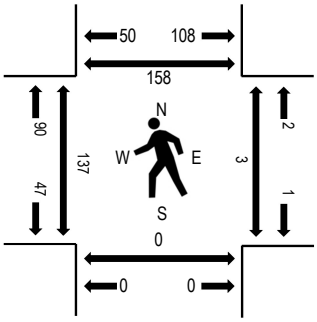
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

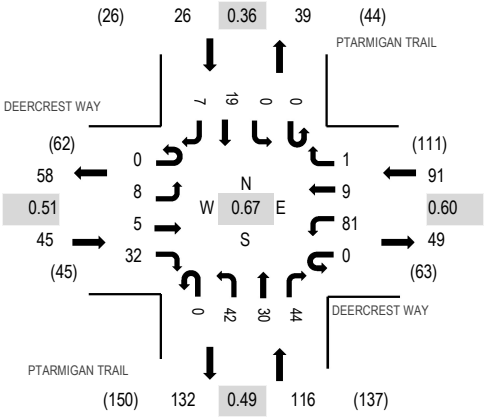
Traffic Counts - Motorized Vehicles

Interval Start Time	DEERCREST WAY Eastbound				DEERCREST WAY Westbound				PTARMIGAN TRAIL Northbound				PTARMIGAN TRAIL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	0	2	2	0	8	2	0	0	1	2	20	0	0	1	0	38	338	0	1	0	1
8:00 AM	0	0	2	0	0	7	0	0	0	2	6	14	0	0	2	0	33	332	1	0	0	0
8:15 AM	0	7	9	5	0	19	5	0	0	8	23	43	0	0	8	1	128	302	38	1	0	57
8:30 AM	0	6	6	17	0	41	9	1	0	4	9	32	0	0	8	6	139		98	1	0	100
8:45 AM	0	0	0	6	0	16	0	0	0	0	2	4	0	0	4	0	32		7	0	2	4
9:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	3		0	0	0	2
Count Total	0	13	19	30	0	92	16	1	0	16	43	113	0	0	23	7	373		144	3	2	164
Peak Hour	0	13	19	24	0	75	16	1	0	15	40	109	0	0	19	7	338		137	3	0	158

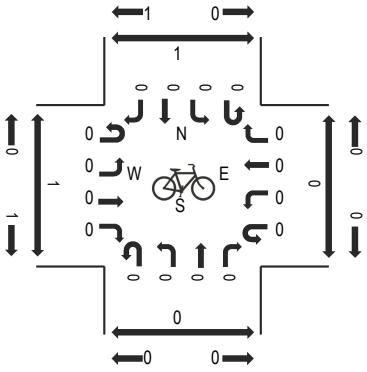
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 30 PTARMIGAN TRAIL & DEERCREST WAY PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

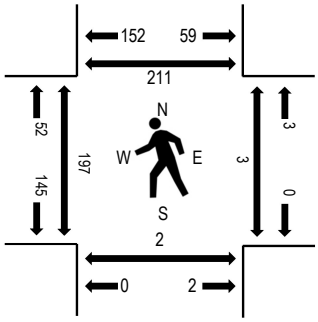
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

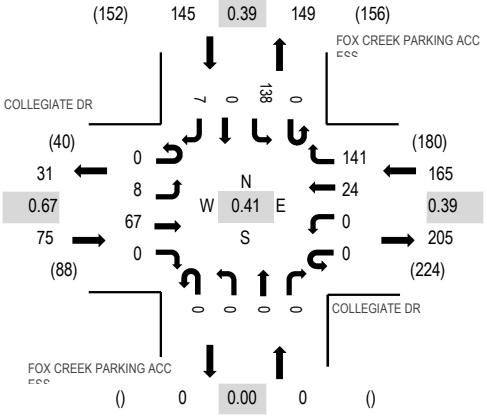
Traffic Counts - Motorized Vehicles

Interval Start Time	DEERCREST WAY Eastbound				DEERCREST WAY Westbound				PTARMIGAN TRAIL Northbound				PTARMIGAN TRAIL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:45 PM	0	0	0	0	0	2	0	0	0	2	3	8	0	0	0	0	15	238	0	0	0	0
3:00 PM	0	5	0	1	0	6	0	0	0	6	7	15	0	0	1	0	41	278	0	0	0	0
3:15 PM	0	2	4	1	0	7	0	0	0	34	11	19	0	0	0	0	78	263	49	3	2	53
3:30 PM	0	0	1	21	0	34	9	0	0	2	10	9	0	0	11	7	104		147	0	0	156
3:45 PM	0	1	0	9	0	34	0	1	0	0	2	1	0	0	7	0	55		1	0	0	2
4:00 PM	0	0	0	0	0	16	2	0	0	0	2	6	0	0	0	0	26		0	0	0	0
Count Total	0	8	5	32	0	99	11	1	0	44	35	58	0	0	19	7	319		197	3	2	211
Peak Hour	0	8	5	32	0	81	9	1	0	42	30	44	0	0	19	7	278		197	3	2	211

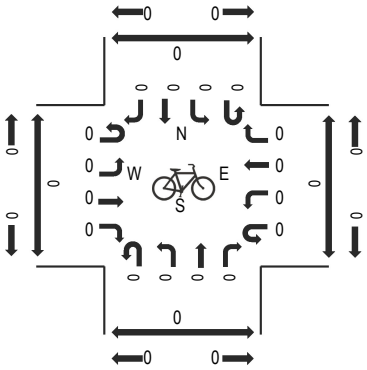
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 31 FOX CREEK PARKING ACCESS & COLLEGIATE DR AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

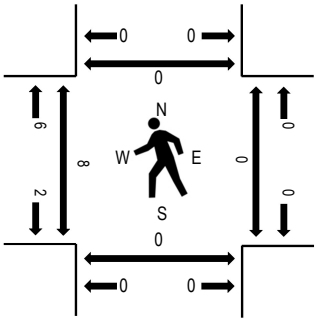
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

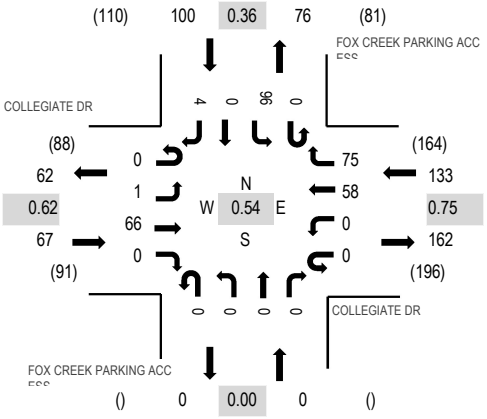
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				FOX CREEK PARKING ACCESS Northbound				FOX CREEK PARKING ACCESS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	0	17	0	0	0	3	6	0	0	0	0	0	0	0	0	26	385	1	0	0	0
8:00 AM	0	1	16	0	0	0	6	22	0	0	0	0	0	3	0	1	49	381	0	0	0	0
8:15 AM	0	5	23	0	0	0	8	99	0	0	0	0	0	93	0	5	233	345	7	0	0	0
8:30 AM	0	2	11	0	0	0	7	14	0	0	0	0	0	42	0	1	77		0	0	0	0
8:45 AM	0	0	7	0	0	0	3	6	0	0	0	0	0	5	0	1	22		0	0	0	1
9:00 AM	0	0	6	0	0	0	5	1	0	0	0	0	0	1	0	0	13		0	0	0	0
Count Total	0	8	80	0	0	0	32	148	0	0	0	0	0	144	0	8	420		8	0	0	1
Peak Hour	0	8	67	0	0	0	24	141	0	0	0	0	0	138	0	7	385		8	0	0	0

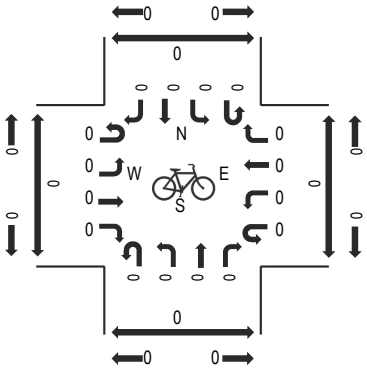
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 31 FOX CREEK PARKING ACCESS & COLLEGIATE DR PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

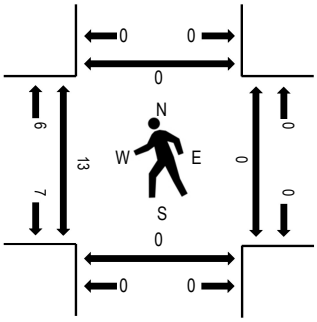
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

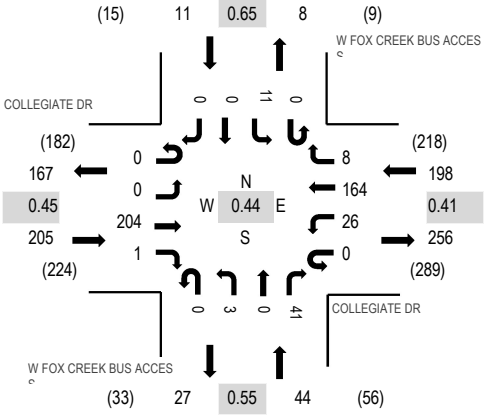
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				FOX CREEK PARKING ACCESS Northbound				FOX CREEK PARKING ACCESS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:45 PM	0	0	8	0	0	0	11	5	0	0	0	0	0	3	0	0	27	287	0	0	0	0
3:00 PM	0	1	10	0	0	0	10	28	0	0	0	0	0	5	0	0	54	300	0	0	0	0
3:15 PM	0	0	16	0	0	0	26	20	0	0	0	0	0	6	0	0	68	284	5	0	0	0
3:30 PM	0	0	29	0	0	0	11	27	0	0	0	0	0	68	0	3	138		8	0	0	0
3:45 PM	0	0	11	0	0	0	11	0	0	0	0	0	0	17	0	1	40		0	0	0	0
4:00 PM	0	0	16	0	0	0	15	0	0	0	0	0	0	7	0	0	38		0	0	0	0
Count Total	0	1	90	0	0	0	84	80	0	0	0	0	0	106	0	4	365		13	0	0	0
Peak Hour	0	1	66	0	0	0	58	75	0	0	0	0	0	96	0	4	300		13	0	0	0

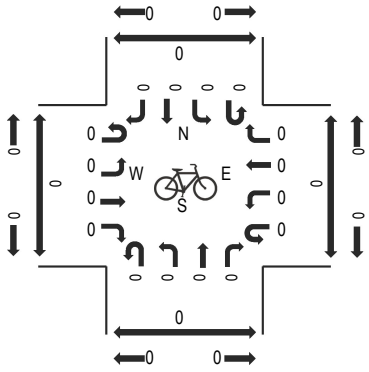
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 32 W FOX CREEK BUS ACCESS & COLLEGIATE DR AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

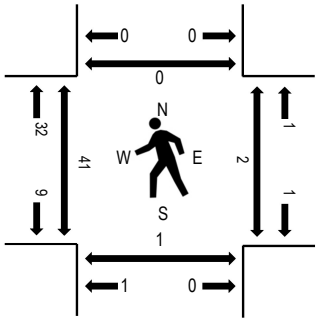
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

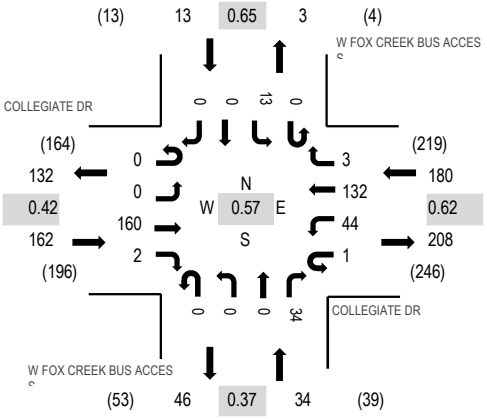
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				W FOX CREEK BUS ACCESS Northbound				W FOX CREEK BUS ACCESS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	0	17	0	0	6	8	4	0	2	0	5	0	1	0	0	43	458	3	0	0	0
8:00 AM	0	0	18	1	0	4	30	1	0	1	0	6	0	3	0	0	64	448	6	2	1	0
8:15 AM	0	0	114	0	0	13	105	2	0	0	0	20	0	5	0	0	259	406	29	0	0	0
8:30 AM	0	0	55	0	0	3	21	1	0	0	0	10	0	2	0	0	92		3	0	0	0
8:45 AM	0	0	11	1	0	4	8	1	0	0	0	5	0	2	0	1	33		1	0	0	0
9:00 AM	0	0	7	0	0	1	6	0	0	0	0	7	0	1	0	0	22		0	0	0	0
Count Total	0	0	222	2	0	31	178	9	0	3	0	53	0	14	0	1	513		42	2	1	0
Peak Hour	0	0	204	1	0	26	164	8	0	3	0	41	0	11	0	0	458		41	2	1	0

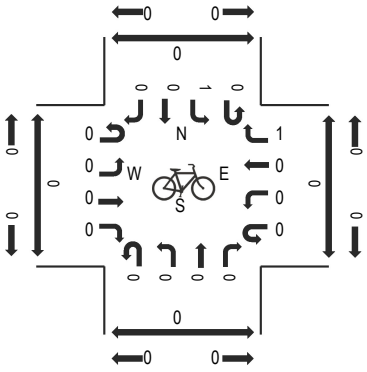
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 32 W FOX CREEK BUS ACCESS & COLLEGIATE DR PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

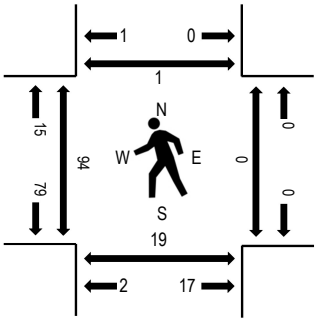
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

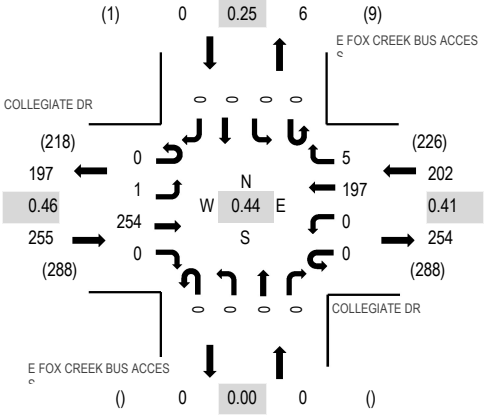
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				W FOX CREEK BUS ACCESS Northbound				W FOX CREEK BUS ACCESS Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:45 PM	0	0	11	0	0	4	16	1	0	1	0	3	0	0	0	0	36	369	3	0	3	0
3:00 PM	0	0	14	0	0	9	39	1	0	0	0	3	0	2	0	0	68	389	1	0	0	0
3:15 PM	0	0	15	1	1	16	57	1	0	0	0	2	0	1	0	0	94	363	14	0	2	0
3:30 PM	0	0	103	0	0	12	28	0	0	0	0	23	0	5	0	0	171		76	0	17	0
3:45 PM	0	0	28	1	0	7	8	1	0	0	0	6	0	5	0	0	56		3	0	0	1
4:00 PM	0	0	23	0	0	3	15	0	0	0	0	1	0	0	0	0	42		0	0	0	0
Count Total	0	0	194	2	1	51	163	4	0	1	0	38	0	13	0	0	467		97	0	22	1
Peak Hour	0	0	160	2	1	44	132	3	0	0	0	34	0	13	0	0	389		94	0	19	1

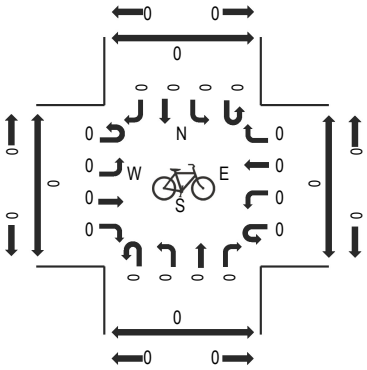
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 33 E FOX CREEK BUS ACCESS & COLLEGIATE DR AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

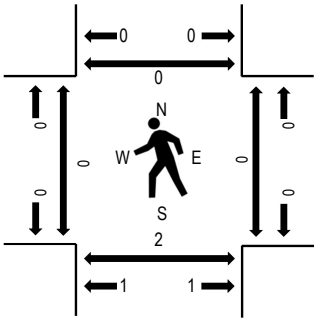
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

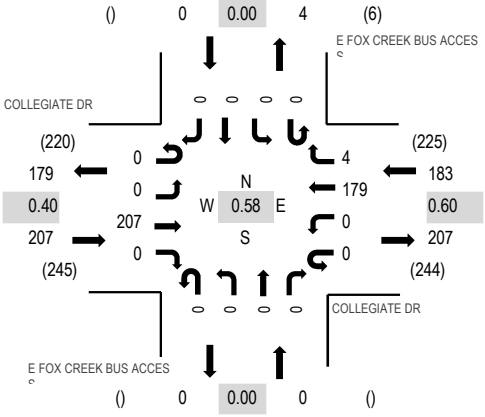
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				E FOX CREEK BUS ACCESS Northbound				E FOX CREEK BUS ACCESS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	0	23	0	0	0	18	0	0	0	0	0	0	0	0	0	41	457	0	0	1	0
8:00 AM	0	0	27	0	0	0	36	1	0	0	0	0	0	0	0	0	64	449	0	0	0	0
8:15 AM	0	1	137	0	0	0	119	4	0	0	0	0	0	0	0	0	261	410	0	0	1	0
8:30 AM	0	0	67	0	0	0	24	0	0	0	0	0	0	0	0	0	91		0	0	0	0
8:45 AM	0	0	18	0	0	0	13	2	0	0	0	0	0	0	0	0	33		0	0	0	0
9:00 AM	0	0	15	0	0	0	8	1	0	0	0	0	0	1	0	0	25		0	0	0	0
Count Total	0	1	287	0	0	0	218	8	0	0	0	0	0	1	0	0	515		0	0	2	0
Peak Hour	0	1	254	0	0	0	197	5	0	0	0	0	0	0	0	0	457		0	0	2	0

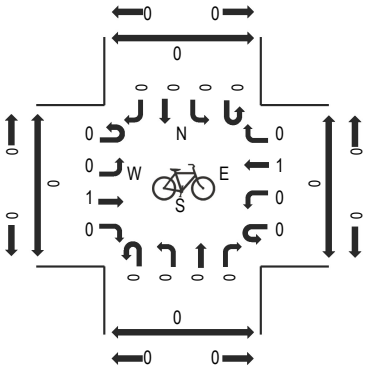
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 33 E FOX CREEK BUS ACCESS & COLLEGIATE DR PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

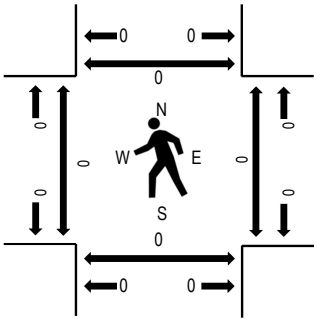
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

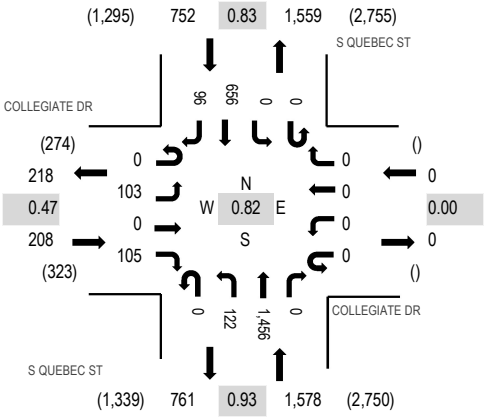
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				E FOX CREEK BUS ACCESS Northbound				E FOX CREEK BUS ACCESS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:45 PM	0	0	14	0	0	0	22	0	0	0	0	0	0	0	0	0	36	374	0	0	0	0
3:00 PM	0	0	19	0	0	0	51	1	0	0	0	0	0	0	0	0	71	390	0	0	0	0
3:15 PM	0	0	19	0	0	0	78	2	0	0	0	0	0	0	0	0	99	363	0	0	0	0
3:30 PM	0	0	131	0	0	0	36	1	0	0	0	0	0	0	0	0	168		0	0	0	0
3:45 PM	0	0	38	0	0	0	14	0	0	0	0	0	0	0	0	0	52		0	0	0	0
4:00 PM	0	1	23	0	0	0	19	1	0	0	0	0	0	0	0	0	44		0	0	0	0
Count Total	0	1	244	0	0	0	220	5	0	0	0	0	0	0	0	0	470		0	0	0	0
Peak Hour	0	0	207	0	0	0	179	4	0	0	0	0	0	0	0	0	390		0	0	0	0

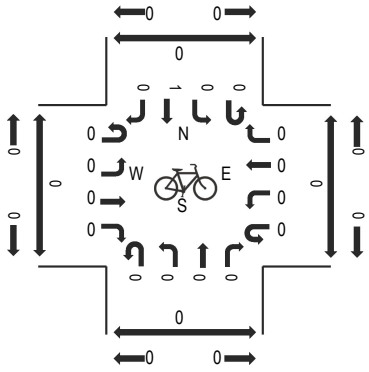
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 34 S QUEBEC ST & COLLEGIATE DR AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

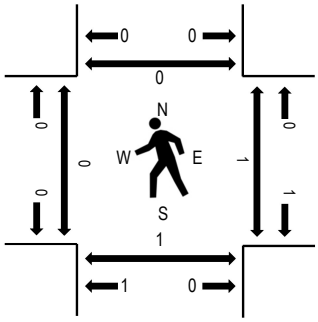
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

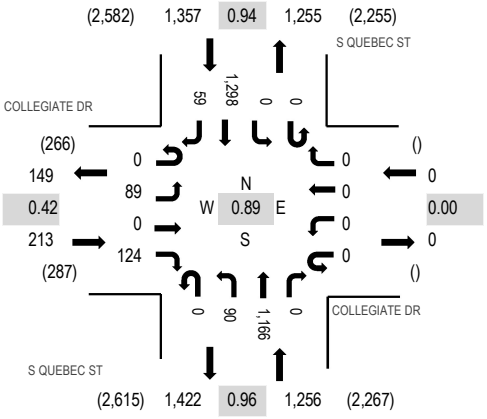
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				S QUEBEC ST Northbound				S QUEBEC ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	16	0	8	0	0	0	0	0	28	394	0	0	0	129	12	587	2,538	0	1	1	0
7:45 AM	0	9	0	14	0	0	0	0	0	10	390	0	0	0	181	8	612	2,512	0	0	0	0
8:00 AM	0	11	0	17	0	0	0	0	0	27	319	0	0	0	185	10	569	2,383	0	0	0	0
8:15 AM	0	67	0	66	0	0	0	0	0	57	353	0	0	0	161	66	770	2,234	0	0	0	0
8:30 AM	0	34	0	34	0	0	0	0	0	16	340	0	0	0	129	8	561	1,830	0	0	0	0
8:45 AM	0	10	0	12	0	0	0	0	0	10	317	0	0	0	129	5	483		0	0	0	0
9:00 AM	0	8	0	6	0	0	0	0	0	4	258	0	0	0	139	5	420		0	0	0	0
9:15 AM	0	5	0	6	0	0	0	0	0	3	224	0	0	0	123	5	366		0	0	0	0
Count Total	0	160	0	163	0	0	0	0	0	155	2,595	0	0	0	1,176	119	4,368		0	1	1	0
Peak Hour	0	103	0	105	0	0	0	0	0	122	1,456	0	0	0	656	96	2,538		0	1	1	0

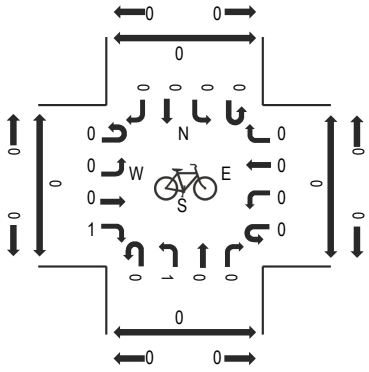
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 34 S QUEBEC ST & COLLEGIATE DR PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:15 PM - 04:15 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

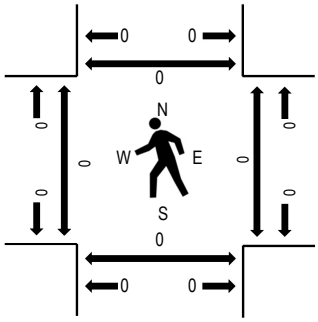
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

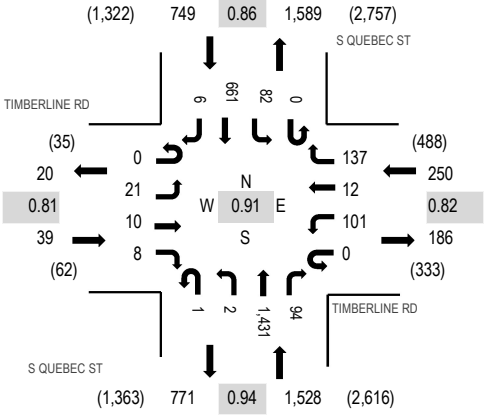
Traffic Counts - Motorized Vehicles

Interval Start Time	COLLEGIATE DR Eastbound				COLLEGIATE DR Westbound				S QUEBEC ST Northbound				S QUEBEC ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	0	14	0	5	0	0	0	0	0	7	189	0	0	0	254	9	478	2,378	0	0	0	0
2:45 PM	0	5	0	9	0	0	0	0	0	6	228	0	0	0	305	16	569	2,692	0	0	0	0
3:00 PM	0	5	0	13	0	0	0	0	0	23	271	0	1	0	311	31	655	2,787	0	2	0	0
3:15 PM	0	13	0	8	0	0	0	0	0	47	257	0	0	0	320	31	676	2,826	0	0	0	0
3:30 PM	0	48	0	81	0	0	0	0	0	25	302	0	0	0	324	12	792	2,758	0	0	0	0
3:45 PM	0	17	0	23	0	0	0	0	0	4	310	0	0	0	300	10	664		0	0	0	0
4:00 PM	0	11	0	12	0	0	0	0	0	14	297	0	0	0	354	6	694		0	0	0	0
4:15 PM	0	11	0	12	0	0	0	0	0	11	276	0	0	0	284	14	608		0	0	0	0
Count Total	0	124	0	163	0	0	0	0	0	137	2,130	0	1	0	2,452	129	5,136		0	2	0	0
Peak Hour	0	89	0	124	0	0	0	0	0	90	1,166	0	0	0	1,298	59	2,826		0	0	0	0

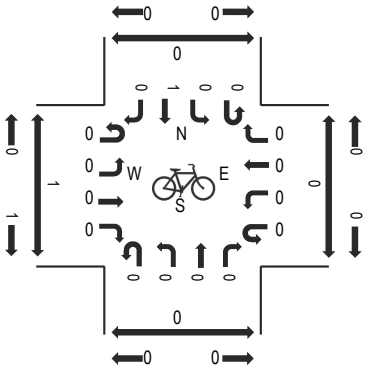
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 35 S QUEBEC ST & TIMBERLINE RD AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

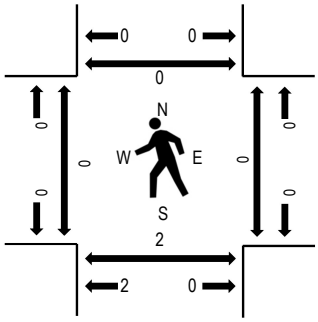
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

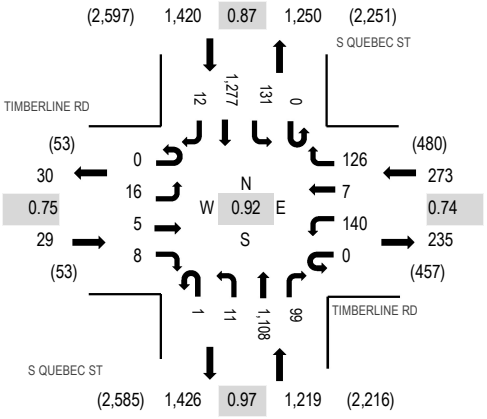
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				S QUEBEC ST Northbound				S QUEBEC ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	8	2	2	0	30	4	30	0	0	382	24	0	12	126	0	620	2,566	0	0	0	0
7:45 AM	0	5	2	4	0	17	1	31	0	1	369	16	0	16	169	0	631	2,547	0	0	0	0
8:00 AM	0	5	1	0	0	33	3	30	1	1	309	23	0	21	178	2	607	2,423	0	0	2	0
8:15 AM	0	3	5	2	0	21	4	46	0	0	371	31	0	33	188	4	708	2,203	0	0	0	0
8:30 AM	1	5	2	4	0	33	5	51	0	2	310	24	0	24	139	1	601	1,922	0	0	0	0
8:45 AM	0	5	0	0	0	27	0	38	0	1	279	20	0	13	122	2	507		2	0	0	0
9:00 AM	0	2	0	1	0	23	0	24	1	0	186	11	0	14	123	2	387		0	0	0	0
9:15 AM	0	2	0	1	0	11	0	26	0	0	240	14	0	25	107	1	427		0	0	0	0
Count Total	1	35	12	14	0	195	17	276	2	5	2,446	163	0	158	1,152	12	4,488		2	0	2	0
Peak Hour	0	21	10	8	0	101	12	137	1	2	1,431	94	0	82	661	6	2,566		0	0	2	0

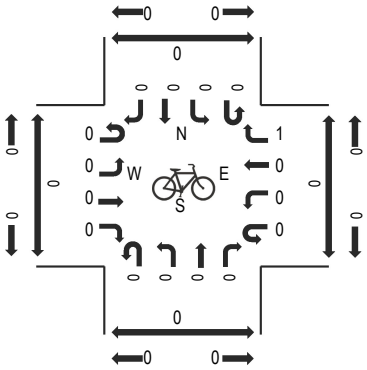
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 35 S QUEBEC ST & TIMBERLINE RD PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:15 PM - 04:15 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

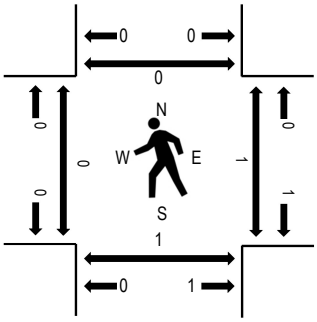
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

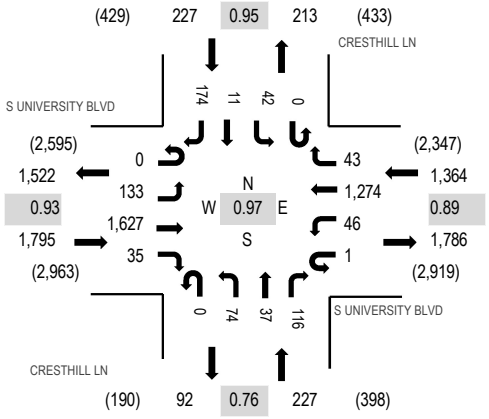
Traffic Counts - Motorized Vehicles

Interval Start Time	TIMBERLINE RD Eastbound				TIMBERLINE RD Westbound				S QUEBEC ST Northbound				S QUEBEC ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	0	2	2	2	0	28	1	17	0	1	172	6	0	29	231	1	492	2,478	0	0	0	0
2:45 PM	0	3	2	0	0	28	1	19	1	4	226	25	0	31	269	1	610	2,784	0	0	0	0
3:00 PM	0	7	3	0	0	25	2	24	0	3	248	29	0	41	273	2	657	2,877	0	1	0	0
3:15 PM	0	5	4	2	0	30	2	27	0	4	277	32	0	32	302	2	719	2,941	0	0	1	0
3:30 PM	0	2	0	2	0	30	2	41	1	3	286	23	0	44	359	5	798	2,868	0	0	0	0
3:45 PM	0	4	1	3	0	56	3	35	0	2	267	17	0	24	287	4	703		0	0	0	0
4:00 PM	0	5	0	1	0	24	0	23	0	2	278	27	0	31	329	1	721		0	1	0	0
4:15 PM	0	1	2	0	0	35	2	25	0	3	257	22	0	30	267	2	646		1	0	0	0
Count Total	0	29	14	10	0	256	13	211	2	22	2,011	181	0	262	2,317	18	5,346		1	2	1	0
Peak Hour	0	16	5	8	0	140	7	126	1	11	1,108	99	0	131	1,277	12	2,941		0	1	1	0

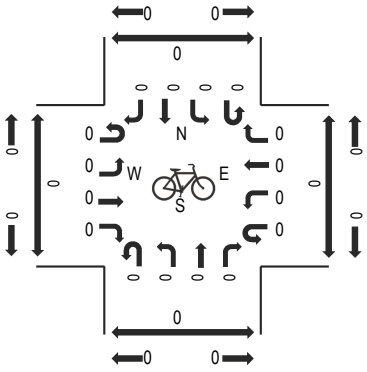
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 36 CRESTHILL LN & S UNIVERSITY BLVD AM
Date: Wednesday, November 13, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

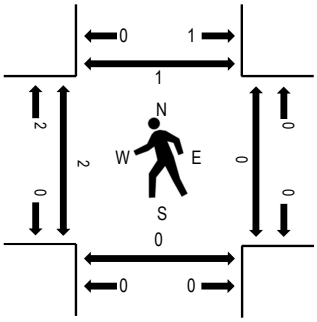
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

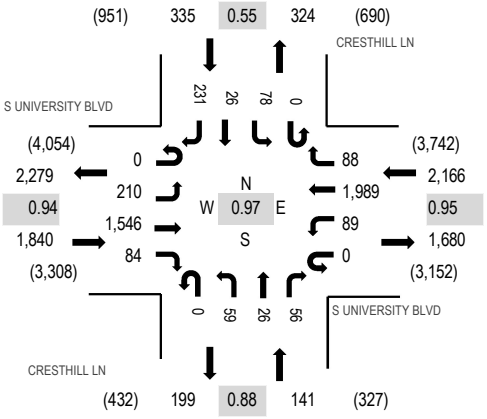
Traffic Counts - Motorized Vehicles

Interval Start Time	S UNIVERSITY BLVD Eastbound				S UNIVERSITY BLVD Westbound				CRESTHILL LN Northbound				CRESTHILL LN Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:45 AM	0	29	382	4	1	6	372	6	0	20	13	42	0	11	4	40	930	3,613	1	0	0	0
8:00 AM	0	36	368	12	0	12	312	7	0	21	10	24	0	11	2	43	858	3,477	0	0	0	0
8:15 AM	0	32	440	10	0	14	313	16	0	11	3	29	0	10	1	48	927	3,333	0	0	0	1
8:30 AM	0	36	437	9	0	14	277	14	0	22	11	21	0	10	4	43	898	2,928	1	0	0	0
8:45 AM	0	35	342	17	0	6	270	19	0	18	6	23	0	11	3	44	794	2,524	0	0	0	0
9:00 AM	0	46	258	13	0	16	230	37	0	15	18	19	0	14	6	42	714		0	0	0	0
9:15 AM	0	20	209	5	0	12	181	14	0	18	4	19	0	10	2	28	522		0	0	0	0
9:30 AM	0	18	198	7	0	10	186	2	0	13	1	17	0	13	1	28	494		0	0	0	0
Count Total	0	252	2,634	77	1	90	2,141	115	0	138	66	194	0	90	23	316	6,137		2	0	0	1
Peak Hour	0	133	1,627	35	1	46	1,274	43	0	74	37	116	0	42	11	174	3,613		2	0	0	1

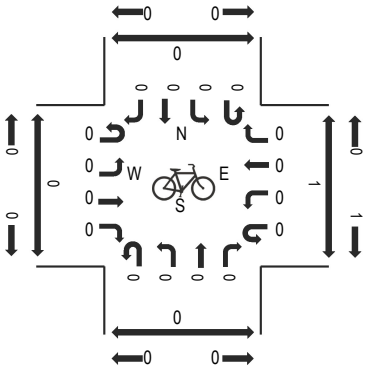
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 36 CRESTHILL LN & S UNIVERSITY BLVD PM
Date: Wednesday, November 13, 2024
Peak Hour: 03:30 PM - 04:30 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

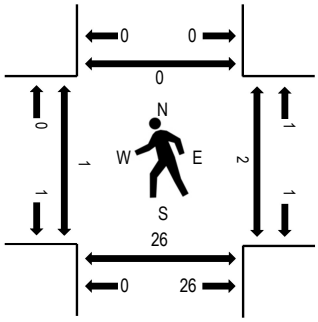
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	S UNIVERSITY BLVD Eastbound				S UNIVERSITY BLVD Westbound				CRESTHILL LN Northbound				CRESTHILL LN Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:30 PM	0	64	235	15	0	16	295	45	0	14	15	14	0	17	3	36	769	3,846	2	0	1	0
2:45 PM	0	51	249	10	0	21	331	35	0	13	10	21	0	112	56	118	1,027	4,199	41	11	6	0
3:00 PM	0	49	326	19	0	24	385	14	0	13	13	20	0	52	28	96	1,039	4,310	2	3	1	0
3:15 PM	0	50	379	21	0	11	386	13	0	20	7	26	0	21	9	68	1,011	4,432	2	0	0	0
3:30 PM	0	48	424	22	0	19	482	16	0	12	5	21	0	13	4	56	1,122	4,482	0	1	26	0
3:45 PM	0	49	386	16	0	29	523	16	0	15	6	11	0	24	6	57	1,138		0	0	0	0
4:00 PM	0	49	391	20	0	23	525	16	0	13	9	17	0	26	10	62	1,161		0	1	0	0
4:15 PM	0	64	345	26	0	18	459	40	0	19	6	7	0	15	6	56	1,061		1	0	0	0
Count Total	0	424	2,735	149	0	161	3,386	195	0	119	71	137	0	280	122	549	8,328		48	16	34	0
Peak Hour	0	210	1,546	84	0	89	1,989	88	0	59	26	56	0	78	26	231	4,482		1	2	26	0

Appendix C Existing Traffic Signal Timing Plans

Station : 5 - University & Cresthill Ln (Standard File)

Phase [1.1.1]

	ϕ1 (WL)	ϕ2 (ET)	ϕ3 (NL)	ϕ4 (ST)	ϕ5 (EL)	ϕ6 (WT)	ϕ7 (SL)	ϕ8 (NT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clearance	0	13	0	31	0	18	0	33	0	0	0	0	0	0	0	0
Min Green	5	20	5	3	5	20	5	5	0	0	0	0	0	0	0	0
Gap Ext	1.5	3	1.5	2	2	3	1.5	2	0	0	0	0	0	0	0	0
Max1	20	50	15	50	25	50	20	35	0	0	0	0	0	0	0	0
Max2	10	20	8	15	15	20	10	15	0	0	0	0	0	0	0	0
Yellow Clr	3	4	3	3	3	4	3	3	3	3	3	3	3	3	3	3
Red Clr	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2
Red Revert	5	5	5	5	5	5	5	5	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																

Phase Option [1.1.2]

	ϕ1 (WL)	ϕ2 (ET)	ϕ3 (NL)	ϕ4 (ST)	ϕ5 (EL)	ϕ6 (WT)	ϕ7 (SL)	ϕ8 (NT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Phase Option+ [1.1.3]/[1.1.5]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time				5												
Omit Yel																
Ped Out																
Start Yel																
Inhibit P1																
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5																
Inhibit P6																
Inhibit P7																
Inhibit P8																
Call Phs1																
Call Phs2																
Redirect P Calls From 1				3				7								
Redirect P Calls To 1				8				4								
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Prepared By / Date	Reviewed By / Date

Station : 5 - University & Cresthill Ln (Standard File)

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	5	RST	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
	60		

Detector, Vehicle Parameters 1-16 [5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON
Call	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0	0
Delay Time	0	0	0	0	0	0	3	0	12	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Yellow Lock																
Red Lock																
Extend	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON				
Added Initial	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON				
Call	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON				
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7	0	0	0	0
Switch Phase	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0
Delay Time	0	0	0	0	3	0	7.5	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	15	15	15	15	15	15	15	15								
Erratic Cnt	0	0	0	0	0	0	0	0								

Station : 5 - University & Cresthill Ln (Standard File)

Channels/SDLC, Assign to Phases [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC +, Assign to Phases [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	-GRYEL		3.5	1.5
Overlap 2																	-GRYEL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Overlap Program Parameters+ [1.5.2.3]

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Leading Green																
FYA MCE Disable																
FYA After Preempt																
FYA Skip Red																
PedCallClear																
FYA ImmedReturn																
FYARedB4Ped																
Transit Input	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Ext Overlap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FYAGapExt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 5 - University & Cresthill Ln (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON				
Override Higher Preempt	ON	ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	5	5	5	5
Min Green	0	0	5	5	5	5
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	2	4	1	3
Dwell Cyc Veh 2	0	0	5	7	6	8
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 5	0	0	0	0	0	0
Dwell Cyc Veh 6	0	0	0	0	0	0
Dwell Cyc Veh 7	0	0	0	0	0	0
Dwell Cyc Veh 8	0	0	0	0	0	0
Dwell Cyc Veh 9	0	0	0	0	0	0
Dwell Cyc Veh 10	0	0	0	0	0	0
Dwell Cyc Veh 11	0	0	0	0	0	0
Dwell Cyc Veh 12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell vPed7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	3	0	3	0
Exit 2	0	0	7	0	7	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Preemption Adv Times[3.8]/Init Dwell [3.9]

Preempt	1	2	3	4	5	6
All Red B4 Preempt						
Reset Ext Dwell						
Reservice Preempt						
End Dwell						
DsblDwellCalls						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dynamic Exit Threshold	0	0	0	0	0	0
Initial Dwell Phase 1	0	0	0	0	0	0
Initial Dwell Phase 2	0	0	0	0	0	0
Initial Dwell Phase 3	0	0	0	0	0	0
Initial Dwell Phase 4	0	0	0	0	0	0
Ped 1	0	0	0	0	0	0
Ped 2	0	0	0	0	0	0
Ped 3	0	0	0	0	0	0
Ped 4	0	0	0	0	0	0
Initial Dwell Overlap 1	0	0	0	0	0	0
Initial Dwell Overlap 2	0	0	0	0	0	0
Initial Dwell Overlap 3	0	0	0	0	0	0
Initial Dwell Overlap 4	0	0	0	0	0	0
Initial Dwell Overlap 5	0	0	0	0	0	0
Initial Dwell Overlap 6	0	0	0	0	0	0
Initial Dwell Overlap 7	0	0	0	0	0	0
Initial Dwell Overlap 8	0	0	0	0	0	0
Initial Dwell Overlap 9	0	0	0	0	0	0
Initial Dwell Overlap 10	0	0	0	0	0	0
Initial Dwell Overlap 11	0	0	0	0	0	0
Initial Dwell Overlap 12	0	0	0	0	0	0
Initial Dwell Overlap 13	0	0	0	0	0	0
Initial Dwell Overlap 14	0	0	0	0	0	0
Initial Dwell Overlap 15	0	0	0	0	0	0

Initial Dwell Overlap 16	0	0	0	0	0	0

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	NO_RECYCLE	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	120	120	100	120												
Offset Time	100	60	70	43												
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short				10		10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 5 - University & Cresthill Ln (Standard File)

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 5 - University & Cresthill Ln (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	49	15	41	25	39	15	41								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	22	71	12	15	17	76	12	15								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	12	31	14	43	14	29	14	43								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	22	43	12	43	17	48	12	43								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 5 - University & Cresthill Ln (Standard File)

Split Table 13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 5 - University & Cresthill Ln (Standard File)

Split Table 25	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 5 - University & Cresthill Ln (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1						1	1							1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1			1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																		1
5																																																			1
6																																																			1
7																																																			1
8																																																			1
9																																																			1
10	1													1	1	1	1	1		1																															10
11					1									1																																1	1	1	1	1	1	1	10
12							1							1	1	1	1	1					1																													10
13									1					1						1	1	1	1	1	1	1																										10
14											1						1																												1	1	1	1	1	1	1	10
15												1		1	1	1	1	1																													1					10
16																																																			1
17	1													1							1																															10
18							1											1				1																														10
19							1							1										1																												10
20												1						1																												1						10
21												1		1																																	1				10
22												1						1																																	1	10
23																																																			1
24																																																			1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	15	19	22										
Minute																
Action	99	1	3	2	3	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	21													
Minute		45														
Action	99	3	99													

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	15	15	19	22									
Minute					30											
Action	99	1	3	4	2	3	99									

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 5 - University & Cresthill Ln (Standard File)

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour		7	21													
Minute		45														
Action	99	3	99													

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Station : 5 - University & Cresthill Ln (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 5 - University & Cresthill Ln (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 1, >Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 2, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 3, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases<				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 5 - University & Cresthill Ln (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

User Input map [1.8.9.1]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	2	16	8	22	3	17	9	23
Pin 2	6	20	12	26	198	199	196	189
Pin 3	15	1	21	7	27	13	28	14
Pin 4	189	189	189	189	4	18	10	24
Pin 5	130	134	132	136	200	201	202	203
Pin 6	189	5	19	11	25	178	208	207
Pin 7	192	193	194	195	196	197	189	189
Pin 8	189	189	189	189	189	189	189	189

User Output map [1.8.9.2]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	14	62	4	28	52	3	27	51
Pin 2	13	61	2	26	50	1	25	49
Pin 3	16	64	8	32	56	7	31	55
Pin 4	15	63	6	30	54	5	29	53
Pin 5	37	39	38	40	42	41	115	114
Pin 6	18	66	12	36	60	11	35	59
Pin 7	17	65	10	34	58	9	33	57
Pin 8	115	115	115	115	115	115	115	115

Station : 30 - Quebec & Collegiate Dr (Standard File)

Phase [1.1.1]

	ϕ1	ϕ2 (NT)	ϕ3	ϕ4 (ET)	ϕ5 (NL)	ϕ6 (ST)	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	0	0	27	0	16	0	0	0	0	0	0	0	0	0	0
Min Green	0	25	0	5	5	25	0	0	0	0	0	0	0	0	0	0
Gap Ext	0	5	0	2.5	1.5	5	0	0	0	0	0	0	0	0	0	0
Max1	0	50	0	30	15	50	0	0	0	0	0	0	0	0	0	0
Max2	0	20	0	15	15	20	0	0	0	0	0	0	0	0	0	0
Yellow Clr	0	4.5	0	3	3	4.5	0	0	3	3	3	3	3	3	3	3
Red Clr	0	1.5	0	2	1	1.5	0	0	2	2	2	2	2	2	2	2
Red Revert	0	5	0	5	5	5	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON												
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																

Phase Option [1.1.2]

	ϕ1	ϕ2 (NT)	ϕ3	ϕ4 (ET)	ϕ5 (NL)	ϕ6 (ST)	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable		ON		ON	ON	ON										
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON				ON										
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Phase Option+ [1.1.3]/[1.1.5]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Inhibit P1																
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5																
Inhibit P6																
Inhibit P7																
Inhibit P8																
Call Phs1																
Call Phs2																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Prepared By / Date	Reviewed By / Date

Station : 30 - Quebec & Collegiate Dr (Standard File)

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	5	RST	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
	60		

Detector, Vehicle Parameters 1-16 [5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON
Added Initial																
Call	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Yellow Lock																
Red Lock																
Extend	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON				
Added Initial																
Call	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON				
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	15	15	15	15	15	15	15	15								
Erratic Cnt	0	0	0	0	0	0	0	0								

Station : 30 - Quebec & Collegiate Dr (Standard File)

Channels/SDLC, Assign to Phases [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC +, Assign to Phases [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	-GRYEL		3.5	1.5
Overlap 2																	-GRYEL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Overlap Program Parameters+ [1.5.2.3]

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Leading Green																
FYA MCE Disable																
FYA After Preempt																
FYA Skip Red																
PedCallClear																
FYA ImmedReturn																
FYARedB4Ped																
Transit Input	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Ext Overlap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FYAGapExt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 30 - Quebec & Collegiate Dr (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON				
Override Higher Preempt	ON	ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	5	5	5	5
Min Green	0	0	5	5	5	5
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	2	0	4	0
Dwell Cyc Veh 2	0	0	6	0	0	0
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 5	0	0	0	0	0	0
Dwell Cyc Veh 6	0	0	0	0	0	0
Dwell Cyc Veh 7	0	0	0	0	0	0
Dwell Cyc Veh 8	0	0	0	0	0	0
Dwell Cyc Veh 9	0	0	0	0	0	0
Dwell Cyc Veh 10	0	0	0	0	0	0
Dwell Cyc Veh 11	0	0	0	0	0	0
Dwell Cyc Veh 12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell vPed7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	4	0	4	0
Exit 2	0	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Preemption Adv Times[3.8]/Init Dwell [3.9]

Preempt	1	2	3	4	5	6
All Red B4 Preempt						
Reset Ext Dwell						
Reservice Preempt						
End Dwell						
DsblDwellCalls						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dynamic Exit Threshold	0	0	0	0	0	0
Initial Dwell Phase 1	0	0	0	0	0	0
Initial Dwell Phase 2	0	0	0	0	0	0
Initial Dwell Phase 3	0	0	0	0	0	0
Initial Dwell Phase 4	0	0	0	0	0	0
Ped 1	0	0	0	0	0	0
Ped 2	0	0	0	0	0	0
Ped 3	0	0	0	0	0	0
Ped 4	0	0	0	0	0	0
Initial Dwell Overlap 1	0	0	0	0	0	0
Initial Dwell Overlap 2	0	0	0	0	0	0
Initial Dwell Overlap 3	0	0	0	0	0	0
Initial Dwell Overlap 4	0	0	0	0	0	0
Initial Dwell Overlap 5	0	0	0	0	0	0
Initial Dwell Overlap 6	0	0	0	0	0	0
Initial Dwell Overlap 7	0	0	0	0	0	0
Initial Dwell Overlap 8	0	0	0	0	0	0
Initial Dwell Overlap 9	0	0	0	0	0	0
Initial Dwell Overlap 10	0	0	0	0	0	0
Initial Dwell Overlap 11	0	0	0	0	0	0
Initial Dwell Overlap 12	0	0	0	0	0	0
Initial Dwell Overlap 13	0	0	0	0	0	0
Initial Dwell Overlap 14	0	0	0	0	0	0
Initial Dwell Overlap 15	0	0	0	0	0	0

Initial Dwell Overlap 16	0	0	0	0	0	0

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	NO_RECYCLE	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	135	140	120													
Offset Time	57	12	16													
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 30 - Quebec & Collegiate Dr (Standard File)

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 30 - Quebec & Collegiate Dr (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		98		37	12	86		37								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		103		37	15	88		37								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		83		37	12	71		37								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 30 - Quebec & Collegiate Dr (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 30 - Quebec & Collegiate Dr (Standard File)

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 30 - Quebec & Collegiate Dr (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																		1
5																																																			1
6																																																			1
7																																																			1
8																																																			1
9																																																			1
10	1													1	1	1	1	1		1																																10
11					1									1																																	1	1	1	1	1	1	1	10
12							1							1	1	1	1	1					1																														10
13									1					1						1	1	1	1	1	1	1																											10
14											1						1																															1	1	1	1	1	1	1	10
15												1		1	1	1	1	1																																		1				10
16																																																				1
17	1													1							1																																	10
18							1											1				1																															10
19							1							1									1																															10
20												1						1																															1					10
21												1		1																																				1				10
22												1						1																																			1	10
23																																																				1
24																																																				1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	15	19	20										
Minute						30										
Action	99	1	3	2	3	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	19													
Minute		45	30													
Action	99	3	99													

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	21													
Minute		15														
Action	99	3	99													

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 30 - Quebec & Collegiate Dr (Standard File)

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour		7	19													
Minute		45	30													
Action	99	3	99													

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Station : 30 - Quebec & Collegiate Dr (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 30 - Quebec & Collegiate Dr (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 1, >Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 2, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 3, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases<				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 30 - Quebec & Collegiate Dr (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

User Input map [1.8.9.1]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	2	16	8	22	3	17	9	23
Pin 2	6	20	12	26	198	199	196	189
Pin 3	15	1	21	7	27	13	28	14
Pin 4	189	189	189	189	4	18	10	24
Pin 5	130	134	132	136	200	201	202	203
Pin 6	189	5	19	11	25	178	208	207
Pin 7	192	193	194	195	196	197	189	189
Pin 8	189	189	189	189	189	189	189	189

User Output map [1.8.9.2]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	14	62	4	28	52	3	27	51
Pin 2	13	61	2	26	50	1	25	49
Pin 3	16	64	8	32	56	7	31	55
Pin 4	15	63	6	30	54	5	29	53
Pin 5	37	39	38	40	42	41	115	114
Pin 6	18	66	12	36	60	11	35	59
Pin 7	17	65	10	34	58	9	33	57
Pin 8	115	115	115	115	115	115	115	115

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Phase [1.1.1]

	ϕ1 (SL)	ϕ2 (NT)	ϕ3	ϕ4 (ET)	ϕ5 (NL)	ϕ6 (ST)	ϕ7	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	5	0	5	0	5	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	15	0	30	0	15	0	0	0	0	0	0	0	0	0	0
Min Green	5	25	0	5	5	25	0	5	0	0	0	0	0	0	0	0
Gap Ext	1.5	5	0	2	1.5	5	0	2	0	0	0	0	0	0	0	0
Max1	15	50	0	30	15	50	0	30	0	0	0	0	0	0	0	0
Max2	15	25	0	15	15	25	0	15	0	0	0	0	0	0	0	0
Yellow Clr	3	4.5	0	3	3	4.5	0	3	3	3	3	3	3	3	3	3
Red Clr	1	1.5	0	2	1	1.5	0	2	2	2	2	2	2	2	2	2
Red Revert	5	5	0	5	5	5	0	5	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																

Phase Option [1.1.2]

	ϕ1 (SL)	ϕ2 (NT)	ϕ3	ϕ4 (ET)	ϕ5 (NL)	ϕ6 (ST)	ϕ7	ϕ8 (WT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable	ON	ON		ON	ON	ON		ON								
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Phase Option+ [1.1.3]/[1.1.5]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Inhibit P1		ON														
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5						ON										
Inhibit P6																
Inhibit P7																
Inhibit P8																
Call Phs1																
Call Phs2																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Prepared By / Date	Reviewed By / Date

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	5	RST	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
	60		

Detector, Vehicle Parameters 1-16 [5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON
Added Initial																
Call	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	7.5	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Yellow Lock																
Red Lock																
Extend	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON				
Added Initial																
Call	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON				
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	15	15	15	15	15	15	15	15								
Erratic Cnt	0	0	0	0	0	0	0	0								

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Channels/SDLC, Assign to Phases [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC +, Assign to Phases [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	-GRYEL		3.5	1.5
Overlap 2																	-GRYEL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Overlap Program Parameters+ [1.5.2.3]

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Leading Green																
FYA MCE Disable																
FYA After Preempt																
FYA Skip Red																
PedCallClear																
FYA ImmedReturn																
FYARedB4Ped																
Transit Input	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYA Ext Overlap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GrnExtInh 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FYAGapExt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FYAGapDet4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON				
Override Higher Preempt	ON	ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	5	5	5	5
Min Green	0	0	5	5	5	5
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	2	4	1	8
Dwell Cyc Veh 2	0	0	5	0	6	0
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 5	0	0	0	0	0	0
Dwell Cyc Veh 6	0	0	0	0	0	0
Dwell Cyc Veh 7	0	0	0	0	0	0
Dwell Cyc Veh 8	0	0	0	0	0	0
Dwell Cyc Veh 9	0	0	0	0	0	0
Dwell Cyc Veh 10	0	0	0	0	0	0
Dwell Cyc Veh 11	0	0	0	0	0	0
Dwell Cyc Veh 12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell vPed7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	4	0	4	0
Exit 2	0	0	8	0	8	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Preemption Adv Times[3.8]/Init Dwell [3.9]

Preempt	1	2	3	4	5	6
All Red B4 Preempt						
Reset Ext Dwell						
Reservice Preempt						
End Dwell						
DsblDwellCalls						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dynamic Exit Threshold	0	0	0	0	0	0
Initial Dwell Phase 1	0	0	0	0	0	0
Initial Dwell Phase 2	0	0	0	0	0	0
Initial Dwell Phase 3	0	0	0	0	0	0
Initial Dwell Phase 4	0	0	0	0	0	0
Ped 1	0	0	0	0	0	0
Ped 2	0	0	0	0	0	0
Ped 3	0	0	0	0	0	0
Ped 4	0	0	0	0	0	0
Initial Dwell Overlap 1	0	0	0	0	0	0
Initial Dwell Overlap 2	0	0	0	0	0	0
Initial Dwell Overlap 3	0	0	0	0	0	0
Initial Dwell Overlap 4	0	0	0	0	0	0
Initial Dwell Overlap 5	0	0	0	0	0	0
Initial Dwell Overlap 6	0	0	0	0	0	0
Initial Dwell Overlap 7	0	0	0	0	0	0
Initial Dwell Overlap 8	0	0	0	0	0	0
Initial Dwell Overlap 9	0	0	0	0	0	0
Initial Dwell Overlap 10	0	0	0	0	0	0
Initial Dwell Overlap 11	0	0	0	0	0	0
Initial Dwell Overlap 12	0	0	0	0	0	0
Initial Dwell Overlap 13	0	0	0	0	0	0
Initial Dwell Overlap 14	0	0	0	0	0	0
Initial Dwell Overlap 15	0	0	0	0	0	0

Initial Dwell Overlap 16	0	0	0	0	0	0

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	NO_RECYCLE	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	135	140	120	150												
Offset Time	44	139	13	115												
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1	5							
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short	10	10	10	10	10	10	10	10
Long	34	34	34	34	34	34	34	34
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold	ON	ON	ON	ON	ON	ON	ON	ON
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
Olp Off 1								
Olp Off 2								
Olp Off 3								
Olp Off 4								
Olp Off 5								
Olp Off 6								
Olp Off 7								
Olp Off 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	80		40	12	83		40								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	27	70		43	12	85		43								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	55		40	13	67		40								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	95		40	15	95		40								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Split Table 13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6																																																		1
7																																																			1
8																																																			1
9																																																			1
10	1													1	1	1	1	1		1																															10
11					1									1																															1	1	1	1	1	1	1	10
12						1							1	1	1	1	1	1	1				1																												10
13								1						1						1	1	1	1	1	1	1																										10
14											1						1																												1	1	1	1	1	1	1	10
15												1		1	1	1	1	1																													1					10
16																																																			1
17	1													1							1																															10
18							1											1				1																														10
19							1							1										1																												10
20												1						1																													1					10
21												1		1																																		1				10
22												1						1																																	1	10
23																																																			1
24																																																			1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	9	15	19	20										
Minute						30										
Action	99	1	3	2	3	99										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	19													
Minute		45	30													
Action	99	3	99													

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	21													
Minute		15														
Action	99	3	99													

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Day Plan Table 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour		7	21	23												
Minute		45	45													
Action	99	3	4	99												

Day Plan Table 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table 20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 1, >Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 2, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 3, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases<				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 71 - Quebec & Timberline/Trailhead (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

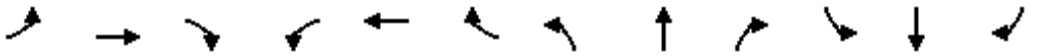
User Input map [1.8.9.1]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	2	16	8	22	3	17	9	23
Pin 2	6	20	12	26	198	199	196	189
Pin 3	15	1	21	7	27	13	28	14
Pin 4	189	189	189	189	4	18	10	24
Pin 5	130	134	132	136	200	201	202	203
Pin 6	189	5	19	11	25	178	208	207
Pin 7	192	193	194	195	196	197	189	189
Pin 8	189	189	189	189	189	189	189	189

User Output map [1.8.9.2]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Pin 1	14	62	4	28	52	3	27	51
Pin 2	13	61	2	26	50	1	25	49
Pin 3	16	64	8	32	56	7	31	55
Pin 4	15	63	6	30	54	5	29	53
Pin 5	37	39	38	40	42	41	115	114
Pin 6	18	66	12	36	60	11	35	59
Pin 7	17	65	10	34	58	9	33	57
Pin 8	115	115	115	115	115	115	115	115

Appendix D Existing Level of Service Reports

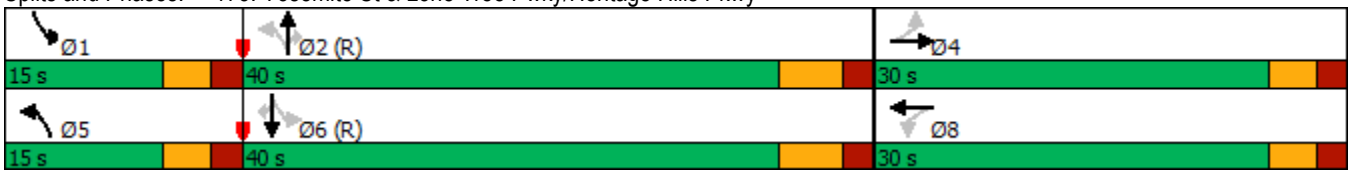


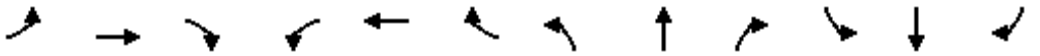
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	7	71	12	10	102	66	694	26	42	357	92
Future Volume (vph)	200	7	71	12	10	102	66	694	26	42	357	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	220		220	190		150
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.863			0.889				0.850			0.850
Flt Protected	0.950				0.995		0.950			0.950		
Satd. Flow (prot)	1770	1608	0	0	1648	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.617				0.973		0.521			0.266		
Satd. Flow (perm)	1149	1608	0	0	1611	0	970	3539	1583	495	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			136				90			98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1044			150			1043			1069	
Travel Time (s)		23.7			3.4			23.7			24.3	
Peak Hour Factor	0.85	0.85	0.85	0.75	0.75	0.75	0.90	0.90	0.90	0.94	0.94	0.94
Adj. Flow (vph)	235	8	84	16	13	136	73	771	29	45	380	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	92	0	0	165	0	73	771	29	45	380	98
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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	28.0	28.0		28.0	28.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0		30.0	30.0		15.0	40.0	40.0	15.0	40.0	40.0
Total Split (%)	35.3%	35.3%		35.3%	35.3%		17.6%	47.1%	47.1%	17.6%	47.1%	47.1%
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	34.0	34.0	10.0	34.0	34.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	18.0	18.0		18.0	18.0			11.0	11.0		12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	25.0	25.0			25.0		45.0	34.0	34.0	45.0	34.0	34.0
Actuated g/C Ratio	0.29	0.29			0.29		0.53	0.40	0.40	0.53	0.40	0.40
v/c Ratio	0.70	0.17			0.29		0.12	0.54	0.04	0.11	0.27	0.14

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	39.5	7.3			7.9		8.2	21.4	0.1	8.2	17.8	4.3
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	7.3			7.9		8.2	21.4	0.1	8.2	17.8	4.3
LOS	D	A			A		A	C	A	A	B	A
Approach Delay		30.5			7.9			19.6			14.4	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	111	3			11		15	162	0	9	70	0
Queue Length 95th (ft)	#181	32			36		33	217	0	23	102	29
Internal Link Dist (ft)		964			70			963			989	
Turn Bay Length (ft)	125						220		220	190		150
Base Capacity (vph)	337	532			569		607	1415	687	412	1415	692
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.17			0.29		0.12	0.54	0.04	0.11	0.27	0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 45 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Pretimed			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 175: Yosemite St & Lone Tree Pwky/Heritage Hills Pkwy



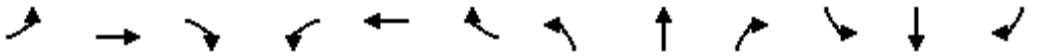


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	10	8	101	12	137	3	1431	94	82	661	6
Future Volume (vph)	21	10	8	101	12	137	3	1431	94	82	661	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	370		0	235		0	305		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.932				0.850		0.991			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1736	0	1770	1863	1583	1770	3507	0	1770	5080	0
Flt Permitted	0.748			0.743			0.318			0.091		
Satd. Flow (perm)	1393	1736	0	1384	1863	1583	592	3507	0	170	5080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				167		9			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2804			191			257			979	
Travel Time (s)		63.7			4.3			5.8			22.3	
Peak Hour Factor	0.81	0.81	0.81	0.82	0.82	0.82	0.94	0.94	0.94	0.86	0.86	0.86
Adj. Flow (vph)	26	12	10	123	15	167	3	1522	100	95	769	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	22	0	123	15	167	3	1622	0	95	776	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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	37.0	37.0		10.0	10.0	10.0	9.0	31.0		9.0	31.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	15.0	50.0		15.0	50.0	
Total Split (%)	31.6%	31.6%		31.6%	31.6%	31.6%	15.8%	52.6%		15.8%	52.6%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	11.0	44.0		11.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.5		3.0	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	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	6.0		4.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Walk Time (s)	5.0	5.0						5.0			5.0	
Flash Dont Walk (s)	27.0	27.0						11.5			11.5	
Pedestrian Calls (#/hr)	0	0						0			0	
Act Effct Green (s)	25.0	25.0		25.0	25.0	25.0	57.0	44.0		57.0	44.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.26	0.60	0.46		0.60	0.46	
v/c Ratio	0.07	0.05		0.34	0.03	0.31	0.01	1.00		0.33	0.33	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	27.0	18.7		31.5	26.3	6.2	6.3	47.6		6.6	16.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	27.0	18.7		31.5	26.3	6.2	6.3	47.6		6.6	16.7	
LOS	C	B		C	C	A	A	D		A	B	
Approach Delay		23.2			17.4			47.5			15.6	
Approach LOS		C			B			D			B	
Queue Length 50th (ft)	12	5		60	7	0	1	493		13	143	
Queue Length 95th (ft)	29	21		100	20	36	4	#675		20	164	
Internal Link Dist (ft)		2724			111			177			899	
Turn Bay Length (ft)	500			370			235			305		
Base Capacity (vph)	366	464		364	490	539	491	1629		287	2353	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.07	0.05		0.34	0.03	0.31	0.01	1.00		0.33	0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 34.1		Intersection LOS: C	
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 190: Quebec St & Timberline



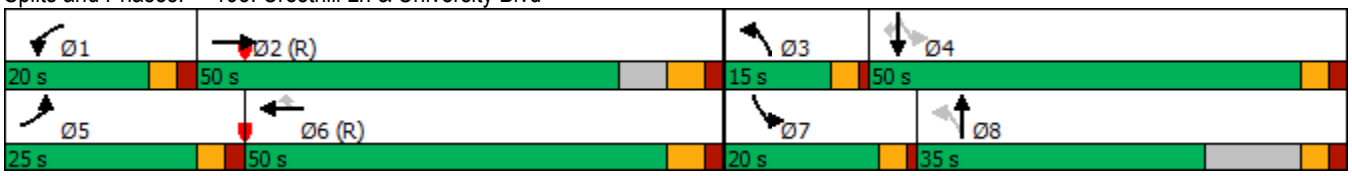
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	1627	35	47	1274	43	74	37	116	42	11	174
Future Volume (vph)	133	1627	35	47	1274	43	74	37	116	42	11	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	620		0	390		0	90		0	0		150
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.886				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5070	0	1770	5085	1583	1770	1650	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.750			0.464		
Satd. Flow (perm)	3433	5070	0	1770	5085	1583	1397	1650	0	864	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				117		112				183
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		382			3033			406			729	
Travel Time (s)		8.7			68.9			9.2			16.6	
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.76	0.76	0.76	0.95	0.95	0.95
Parking (#/hr)			0									
Adj. Flow (vph)	143	1749	38	53	1431	48	97	49	153	44	12	183
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	1787	0	53	1431	48	97	202	0	44	12	183
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(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	8			4		4
Minimum Split (s)	10.0	26.0		10.0	26.0	26.0	9.0	40.0		9.0	38.0	38.0
Total Split (s)	25.0	50.0		20.0	50.0	50.0	15.0	35.0		20.0	50.0	50.0
Total Split (%)	17.9%	35.7%		14.3%	35.7%	35.7%	10.7%	25.0%		14.3%	35.7%	35.7%
Maximum Green (s)	20.0	44.0		15.0	44.0	44.0	11.0	30.0		16.0	45.0	45.0
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Flash Dont Walk (s)		9.0			14.0	14.0		30.0			28.0	28.0
Pedestrian Calls (#/hr)		0			0	0		0			0	0
Act Effct Green (s)	20.0	49.0		15.0	44.0	44.0	52.0	40.0		61.0	45.0	45.0
Actuated g/C Ratio	0.14	0.35		0.11	0.31	0.31	0.37	0.29		0.44	0.32	0.32

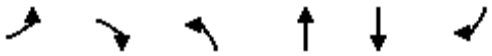
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.29	1.01		0.28	0.90	0.08	0.18	0.37		0.09	0.02	0.29
Control Delay	55.5	68.0		61.9	54.2	0.3	24.9	19.4		23.5	32.7	5.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	55.5	68.0		61.9	54.2	0.3	24.9	19.4		23.5	32.7	5.8
LOS	E	E		E	D	A	C	B		C	C	A
Approach Delay		67.1			52.8			21.2			10.4	
Approach LOS		E			D			C			B	
Queue Length 50th (ft)	60	~602		45	456	0	52	62		23	7	0
Queue Length 95th (ft)	95	#719		88	512	0	75	96		48	23	54
Internal Link Dist (ft)		302			2953			326			649	
Turn Bay Length (ft)	620			390			90					150
Base Capacity (vph)	490	1775		189	1598	577	548	551		480	598	633
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.29	1.01		0.28	0.90	0.08	0.18	0.37		0.09	0.02	0.29

Intersection Summary

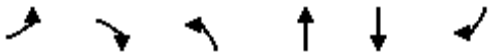
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Pretimed
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 54.8 Intersection LOS: D
Intersection Capacity Utilization 66.3% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 193: Cresthill Ln & University Blvd





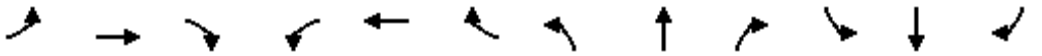
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	103	105	122	1456	656	96
Future Volume (vph)	103	105	122	1456	656	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90	0	320			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	4989	0
Flt Permitted	0.950		0.242			
Satd. Flow (perm)	1770	1583	451	5085	4989	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		223			38	
Link Speed (mph)	30			30	30	
Link Distance (ft)	245			979	2909	
Travel Time (s)	5.6			22.3	66.1	
Peak Hour Factor	0.47	0.47	0.93	0.93	0.83	0.83
Adj. Flow (vph)	219	223	131	1566	790	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	219	223	131	1566	906	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Minimum Split (s)	34.0	34.0	9.0	31.0	31.0	
Total Split (s)	30.0	30.0	15.0	65.0	50.0	
Total Split (%)	31.6%	31.6%	15.8%	68.4%	52.6%	
Maximum Green (s)	25.0	25.0	11.0	59.0	44.0	
Yellow Time (s)	3.0	3.0	3.0	4.5	4.5	
All-Red Time (s)	2.0	2.0	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0			5.0	
Flash Dont Walk (s)	24.0	24.0			11.5	
Pedestrian Calls (#/hr)	0	0			0	
Act Effct Green (s)	25.0	25.0	61.0	59.0	44.0	
Actuated g/C Ratio	0.26	0.26	0.64	0.62	0.46	
v/c Ratio	0.47	0.38	0.30	0.50	0.39	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	33.4	6.1	3.3	6.6	16.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	33.4	6.1	3.3	6.6	16.5	
LOS	C	A	A	A	B	
Approach Delay	19.6			6.3	16.5	
Approach LOS	B			A	B	
Queue Length 50th (ft)	111	0	17	169	120	
Queue Length 95th (ft)	85	0	m17	m160	137	
Internal Link Dist (ft)	165			899	2829	
Turn Bay Length (ft)	90		320			
Base Capacity (vph)	465	580	442	3158	2331	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.47	0.38	0.30	0.50	0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 45.8%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 196: Quebec St & Collegiate Dr

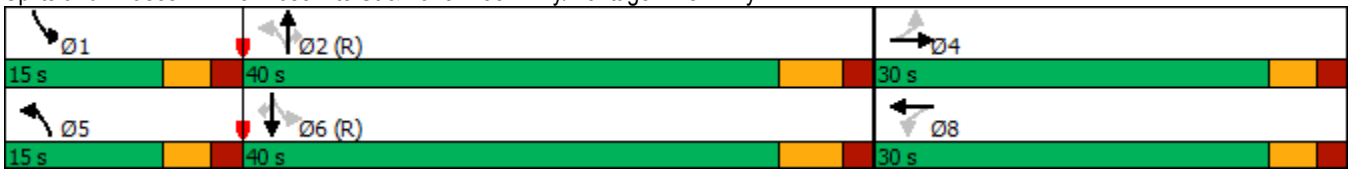


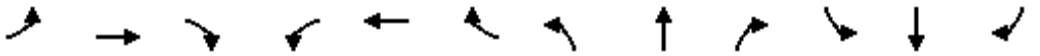
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	12	72	19	10	77	72	972	24	92	795	180
Future Volume (vph)	144	12	72	19	10	77	72	972	24	92	795	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	220		220	190		150
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.902				0.850			0.850
Flt Protected	0.950				0.991		0.950			0.950		
Satd. Flow (prot)	1770	1624	0	0	1665	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.684				0.943		0.211			0.118		
Satd. Flow (perm)	1274	1624	0	0	1584	0	393	3539	1583	220	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101			91				90			200
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1044			150			1043			1069	
Travel Time (s)		23.7			3.4			23.7			24.3	
Peak Hour Factor	0.71	0.71	0.71	0.85	0.85	0.85	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	203	17	101	22	12	91	84	1130	28	102	883	200
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	118	0	0	125	0	84	1130	28	102	883	200
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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	28.0	28.0		28.0	28.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0		30.0	30.0		15.0	40.0	40.0	15.0	40.0	40.0
Total Split (%)	35.3%	35.3%		35.3%	35.3%		17.6%	47.1%	47.1%	17.6%	47.1%	47.1%
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	34.0	34.0	10.0	34.0	34.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	18.0	18.0		18.0	18.0			11.0	11.0		12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	25.0	25.0			25.0		45.0	34.0	34.0	45.0	34.0	34.0
Actuated g/C Ratio	0.29	0.29			0.29		0.53	0.40	0.40	0.53	0.40	0.40
v/c Ratio	0.54	0.22			0.24		0.23	0.80	0.04	0.34	0.62	0.27

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	31.6	7.7			9.5		9.3	27.7	0.1	11.4	22.8	3.6
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	7.7			9.5		9.3	27.7	0.1	11.4	22.8	3.6
LOS	C	A			A		A	C	A	B	C	A
Approach Delay		22.8			9.5			25.8			18.6	
Approach LOS		C			A			C			B	
Queue Length 50th (ft)	91	6			13		18	273	0	22	193	0
Queue Length 95th (ft)	118	25			47		35	331	0	43	256	39
Internal Link Dist (ft)		964			70			963			989	
Turn Bay Length (ft)	125						220		220	190		150
Base Capacity (vph)	374	548			530		370	1415	687	298	1415	753
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.22			0.24		0.23	0.80	0.04	0.34	0.62	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 45 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Pretimed			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 59.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 175: Yosemite St & Lone Tree Pwky/Heritage Hills Pkwy



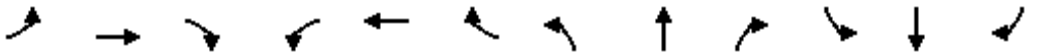


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	5	8	140	7	126	12	1108	99	131	1277	12
Future Volume (vph)	16	5	8	140	7	126	12	1108	99	131	1277	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	370		0	235		0	305		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.908				0.850		0.988			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1691	0	1770	1863	1583	1770	3497	0	1770	5080	0
Flt Permitted	0.752			0.746			0.105			0.106		
Satd. Flow (perm)	1401	1691	0	1390	1863	1583	196	3497	0	197	5080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				170		13			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2804			191			257			979	
Travel Time (s)		63.7			4.3			5.8			22.3	
Peak Hour Factor	0.75	0.75	0.75	0.74	0.74	0.74	0.97	0.97	0.97	0.87	0.87	0.87
Adj. Flow (vph)	21	7	11	189	9	170	12	1142	102	151	1468	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	18	0	189	9	170	12	1244	0	151	1482	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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	37.0	37.0		10.0	10.0	10.0	9.0	31.0		9.5	31.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	15.0	50.0		15.0	50.0	
Total Split (%)	31.6%	31.6%		31.6%	31.6%	31.6%	15.8%	52.6%		15.8%	52.6%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	11.0	44.0		11.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.5		3.0	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	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	6.0		4.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Walk Time (s)	5.0	5.0						5.0			5.0	
Flash Dont Walk (s)	27.0	27.0						11.5			11.5	
Pedestrian Calls (#/hr)	0	0						0			0	
Act Effct Green (s)	25.0	25.0		25.0	25.0	25.0	57.0	44.0		57.0	44.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.26	0.60	0.46		0.60	0.46	
v/c Ratio	0.06	0.04		0.52	0.02	0.31	0.04	0.77		0.50	0.63	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	26.9	17.1		35.8	26.1	6.2	6.5	24.9		11.8	20.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.9	17.1		35.8	26.1	6.2	6.5	24.9		11.8	20.5	
LOS	C	B		D	C	A	A	C		B	C	
Approach Delay		22.4			21.9			24.7			19.7	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	10	3		97	4	0	2	313		13	326	
Queue Length 95th (ft)	23	16		131	13	24	8	398		37	354	
Internal Link Dist (ft)		2724			111			177			899	
Turn Bay Length (ft)	500			370			235			305		
Base Capacity (vph)	368	453		365	490	541	299	1626		300	2353	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.06	0.04		0.52	0.02	0.31	0.04	0.77		0.50	0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Pretimed			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 190: Quebec St & Timberline

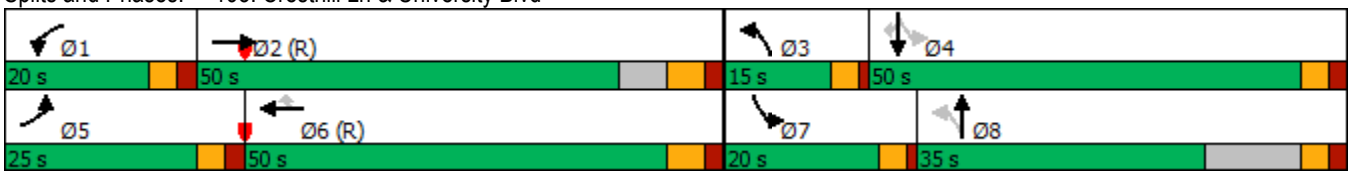


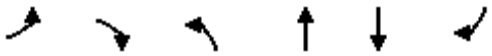
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1546	84	89	1989	88	59	26	56	78	26	231
Future Volume (vph)	210	1546	84	89	1989	88	59	26	56	78	26	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	620		0	390		0	90		0	0		150
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.898				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5045	0	1770	5085	1583	1770	1673	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.726			0.625		
Satd. Flow (perm)	3433	5045	0	1770	5085	1583	1352	1673	0	1164	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				117		64				363
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		382			3033			406			729	
Travel Time (s)		8.7			68.9			9.2			16.6	
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.88	0.88	0.88	0.55	0.55	0.55
Adj. Flow (vph)	223	1645	89	94	2094	93	67	30	64	142	47	420
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	1734	0	94	2094	93	67	94	0	142	47	420
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(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	8			4		4
Minimum Split (s)	10.0	26.0		10.0	26.0	26.0	9.5	40.0		9.5	38.0	38.0
Total Split (s)	25.0	50.0		20.0	50.0	50.0	15.0	35.0		20.0	50.0	50.0
Total Split (%)	17.9%	35.7%		14.3%	35.7%	35.7%	10.7%	25.0%		14.3%	35.7%	35.7%
Maximum Green (s)	20.0	44.0		15.0	44.0	44.0	11.0	30.0		16.0	45.0	45.0
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Flash Dont Walk (s)		9.0			14.0	14.0		30.0			28.0	28.0
Pedestrian Calls (#/hr)		0			0	0		0			0	0
Act Effct Green (s)	20.0	49.0		15.0	44.0	44.0	52.0	40.0		61.0	45.0	45.0
Actuated g/C Ratio	0.14	0.35		0.11	0.31	0.31	0.37	0.29		0.44	0.32	0.32
v/c Ratio	0.46	0.98		0.50	1.31	0.16	0.13	0.18		0.25	0.08	0.56

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	58.4	61.9		68.7	183.1	3.6	24.2	15.3		25.6	33.7	9.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	58.4	61.9		68.7	183.1	3.6	24.2	15.3		25.6	33.7	9.2
LOS	E	E		E	F	A	C	B		C	C	A
Approach Delay		61.5			171.0			19.0			14.9	
Approach LOS		E			F			B			B	
Queue Length 50th (ft)	97	569		82	~896	0	35	20		78	30	37
Queue Length 95th (ft)	140	#683		143	#989	25	65	62		73	36	0
Internal Link Dist (ft)		302			2953			326			649	
Turn Bay Length (ft)	620			390			90					150
Base Capacity (vph)	490	1769		189	1598	577	535	523		576	598	755
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.46	0.98		0.50	1.31	0.16	0.13	0.18		0.25	0.08	0.56

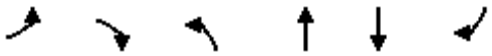
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 110			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay: 104.4		Intersection LOS: F	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 193: Cresthill Ln & University Blvd





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	124	90	166	1298	59
Future Volume (vph)	89	124	90	166	1298	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90	0	320			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.850			0.993	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	5050	0
Flt Permitted	0.950		0.103			
Satd. Flow (perm)	1770	1583	192	5085	5050	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		233			10	
Link Speed (mph)	30			30	30	
Link Distance (ft)	245			979	2909	
Travel Time (s)	5.6			22.3	66.1	
Peak Hour Factor	0.42	0.42	0.96	0.96	0.94	0.94
Adj. Flow (vph)	212	295	94	173	1381	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	212	295	94	173	1444	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Minimum Split (s)	34.0	34.0	9.5	31.0	31.0	
Total Split (s)	30.0	30.0	15.0	65.0	50.0	
Total Split (%)	31.6%	31.6%	15.8%	68.4%	52.6%	
Maximum Green (s)	25.0	25.0	11.0	59.0	44.0	
Yellow Time (s)	3.0	3.0	3.0	4.5	4.5	
All-Red Time (s)	2.0	2.0	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0			5.0	
Flash Dont Walk (s)	24.0	24.0			11.5	
Pedestrian Calls (#/hr)	0	0			0	
Act Effct Green (s)	25.0	25.0	61.0	59.0	44.0	
Actuated g/C Ratio	0.26	0.26	0.64	0.62	0.46	
v/c Ratio	0.46	0.50	0.31	0.05	0.62	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	33.1	10.6	6.2	3.1	20.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	33.1	10.6	6.2	3.1	20.4	
LOS	C	B	A	A	C	
Approach Delay	20.0			4.2	20.4	
Approach LOS	C			A	C	
Queue Length 50th (ft)	107	29	15	9	229	
Queue Length 95th (ft)	73	0	m17	m10	277	
Internal Link Dist (ft)	165			899	2829	
Turn Bay Length (ft)	90		320			
Base Capacity (vph)	465	588	306	3158	2344	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.50	0.31	0.05	0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 48.8%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 196: Quebec St & Collegiate Dr

Intersection	
Int Delay, s/veh	4.4

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	101	3	9	67	28	91
Future Vol, veh/h	101	3	9	67	28	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	79	79	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	5	11	85	45	147

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	226	119	192	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	762	933	1381	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	756	933	1381	-	-	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11.1	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1381	-	756	933	-	-
HCM Lane V/C Ratio	0.008	-	0.23	0.006	-	-
HCM Control Delay (s)	7.6	-	11.2	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.9	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	13	19	24	75	16	1	15	40	109	0	19	7
Future Vol, veh/h	13	19	24	75	16	1	15	40	109	0	19	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	48	48	48	55	55	55	52	52	52
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	38	48	156	33	2	27	73	198	0	37	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	369	44	313	276	172	50	0	0	271	0	0
Stage 1	44	44	-	226	226	-	-	-	-	-	-	-
Stage 2	244	325	-	87	50	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	664	560	1026	640	632	872	1557	-	-	1292	-	-
Stage 1	970	858	-	777	717	-	-	-	-	-	-	-
Stage 2	760	649	-	921	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	625	548	1026	568	619	872	1557	-	-	1292	-	-
Mov Cap-2 Maneuver	625	548	-	568	619	-	-	-	-	-	-	-
Stage 1	950	858	-	761	702	-	-	-	-	-	-	-
Stage 2	707	635	-	839	853	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	14.3	0.7	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1557	-	-	710	578	1292	-	-
HCM Lane V/C Ratio	0.018	-	-	0.158	0.332	-	-	-
HCM Control Delay (s)	7.4	0	-	11	14.3	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	1.4	0	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	85	11	7	51	52	106
Future Vol, veh/h	85	11	7	51	52	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	85	85	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	14	8	60	68	138

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	213	137	206	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	775	911	1365	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	770	911	1365	-	-	-
Mov Cap-2 Maneuver	770	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10.3	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1365	-	770	911	-	-
HCM Lane V/C Ratio	0.006	-	0.145	0.016	-	-
HCM Control Delay (s)	7.7	-	10.5	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	0	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	5	32	81	9	1	42	30	44	0	19	7
Future Vol, veh/h	8	5	32	81	9	1	42	30	44	0	19	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	60	60	60	49	49	49	36	36	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	10	63	135	15	2	86	61	90	0	53	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	344	380	57	372	339	106	61	0	0	151	0	0
Stage 1	57	57	-	278	278	-	-	-	-	-	-	-
Stage 2	287	323	-	94	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	610	552	1009	585	582	948	1542	-	-	1430	-	-
Stage 1	955	847	-	728	680	-	-	-	-	-	-	-
Stage 2	720	650	-	913	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	568	518	1009	515	546	948	1542	-	-	1430	-	-
Mov Cap-2 Maneuver	568	518	-	515	546	-	-	-	-	-	-	-
Stage 1	896	847	-	683	638	-	-	-	-	-	-	-
Stage 2	658	610	-	846	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	14.7	2.7	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1542	-	-	812	521	1430	-	-
HCM Lane V/C Ratio	0.056	-	-	0.109	0.291	-	-	-
HCM Control Delay (s)	7.5	0	-	10	14.7	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	1.2	0	-	-

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	63	43	17	82	46	31	90	12	45	52	21
Future Vol, veh/h	28	63	43	17	82	46	31	90	12	45	52	21
Peak Hour Factor	0.84	0.84	0.84	0.74	0.74	0.74	0.69	0.69	0.69	0.49	0.49	0.49
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	75	51	23	111	62	45	130	17	92	106	43
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.9	10.5	10.4	11
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	23%	100%	0%	100%	0%	38%
Vol Thru, %	68%	0%	59%	0%	64%	44%
Vol Right, %	9%	0%	41%	0%	36%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	28	106	17	128	118
LT Vol	31	28	0	17	0	45
Through Vol	90	0	63	0	82	52
RT Vol	12	0	43	0	46	21
Lane Flow Rate	193	33	126	23	173	241
Geometry Grp	2	5	5	5	5	2
Degree of Util (X)	0.284	0.06	0.2	0.041	0.274	0.349
Departure Headway (Hd)	5.31	6.513	5.717	6.459	5.696	5.213
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	677	550	628	555	631	691
Service Time	3.34	4.246	3.45	4.19	3.427	3.241
HCM Lane V/C Ratio	0.285	0.06	0.201	0.041	0.274	0.349
HCM Control Delay	10.4	9.7	9.9	9.5	10.6	11
HCM Lane LOS	B	A	A	A	B	B
HCM 95th-tile Q	1.2	0.2	0.7	0.1	1.1	1.6

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	94	55	20	85	37	34	50	14	29	64	38
Future Vol, veh/h	30	94	55	20	85	37	34	50	14	29	64	38
Peak Hour Factor	0.81	0.81	0.81	0.74	0.74	0.74	0.56	0.56	0.56	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	116	68	27	115	50	61	89	25	53	116	69
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.6	10.5	10.5	11.1
HCM LOS	B	B	B	B

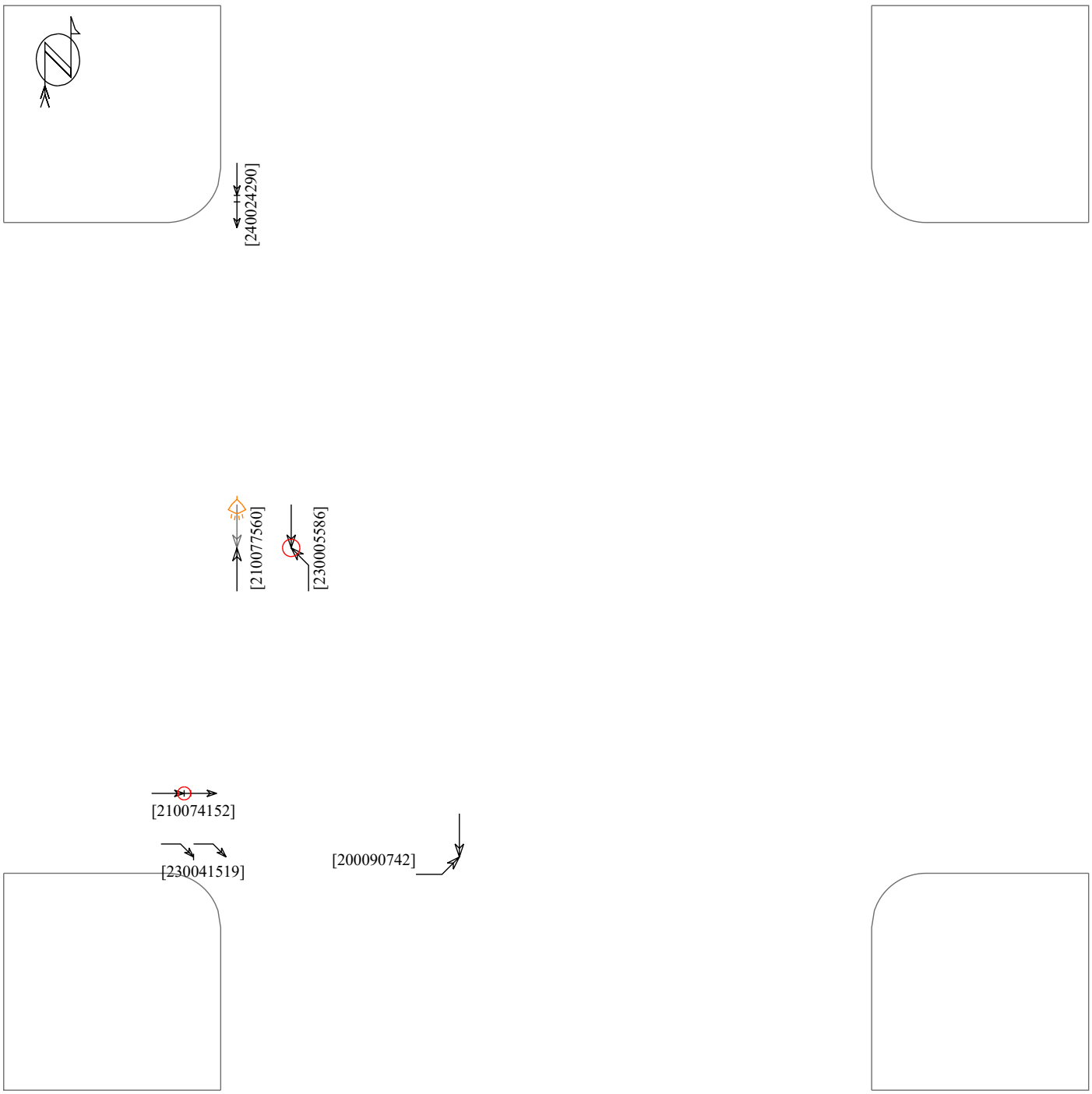
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	35%	100%	0%	100%	0%	22%
Vol Thru, %	51%	0%	63%	0%	70%	49%
Vol Right, %	14%	0%	37%	0%	30%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	30	149	20	122	131
LT Vol	34	30	0	20	0	29
Through Vol	50	0	94	0	85	64
RT Vol	14	0	55	0	37	38
Lane Flow Rate	175	37	184	27	165	238
Geometry Grp	2	5	5	5	5	2
Degree of Util (X)	0.266	0.067	0.291	0.049	0.265	0.347
Departure Headway (Hd)	5.464	6.469	5.699	6.51	5.786	5.251
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	656	554	631	550	620	684
Service Time	3.503	4.205	3.435	4.247	3.523	3.289
HCM Lane V/C Ratio	0.267	0.067	0.292	0.049	0.266	0.348
HCM Control Delay	10.5	9.7	10.8	9.6	10.6	11.1
HCM Lane LOS	B	A	B	A	B	B
HCM 95th-tile Q	1.1	0.2	1.2	0.2	1.1	1.6

Appendix E Crash Diagrams and Listings

QUEBEC ST & COLLEGIATE DR
2019 - 2024

6 Crashes

Clear



Straight
Stopped
Unknown
Backing
Overtaking
Sideswipe

Parked
Weaving
Changing Ln
Right turn
Left turn
U-turn

Pedestrian
Bicycle
Injury
Fatality
Nighttime
DUI

3rd Vehicle
M Motorcycle
Overturn

Fixed objects:
General
Animal
Public Obj
Private Obj

Crash Magic Online 11/13/2024

QUEBEC ST & COLLEGIATE DR
2019 - 2024

6 Crashes

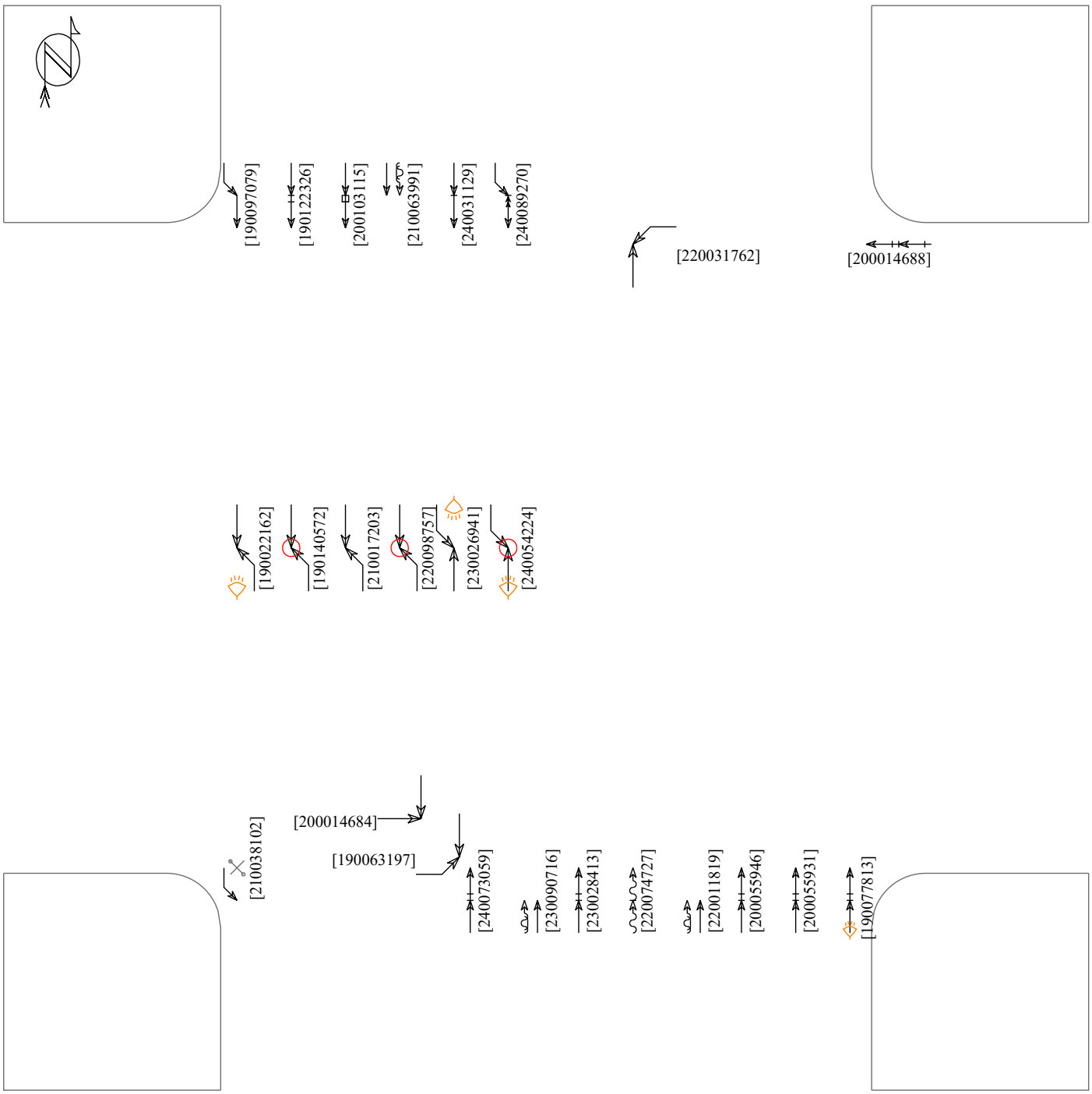
Clear

Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
200090742	3:55 pm	10/4/2020	QUEBEC ST	COLLEGIATE DR		0	0	Front to Side
210074152	7:20 am	9/12/2021	COLLEGIATE DR	QUEBEC ST		1	0	Front to Rear
210077560	11:00 pm	9/23/2021	QUEBEC ST	COLLEGIATE DR		0	0	Front to Front
230005586	3:14 pm	1/23/2023	QUEBEC ST	COLLEGIATE DR		1	0	Front to Front
230041519	3:54 pm	5/16/2023	COLLEGIATE DR	QUEBEC ST		0	0	Front to Rear
240024290	11:55 am	3/12/2024	QUEBEC ST	COLLEGIATE DR		0	0	Front to Rear

QUEBEC ST & TIMBERLINE RD
2019 - 2024

25 Crashes

Clear



Straight
Stopped
Unknown
Backing
Overtaking
Sideswipe

Parked
Weaving
Changing Ln
Right turn
Left turn
U-turn

Pedestrian
Bicycle
Injury
Fatality
Nighttime
DUI

3rd Vehicle
M Motorcycle
Overturn

Fixed objects:
General
Animal
Public Obj
Private Obj

Crash Magic Online 11/13/2024

QUEBEC ST & TIMBERLINE RD
2019 - 2024

25 Crashes

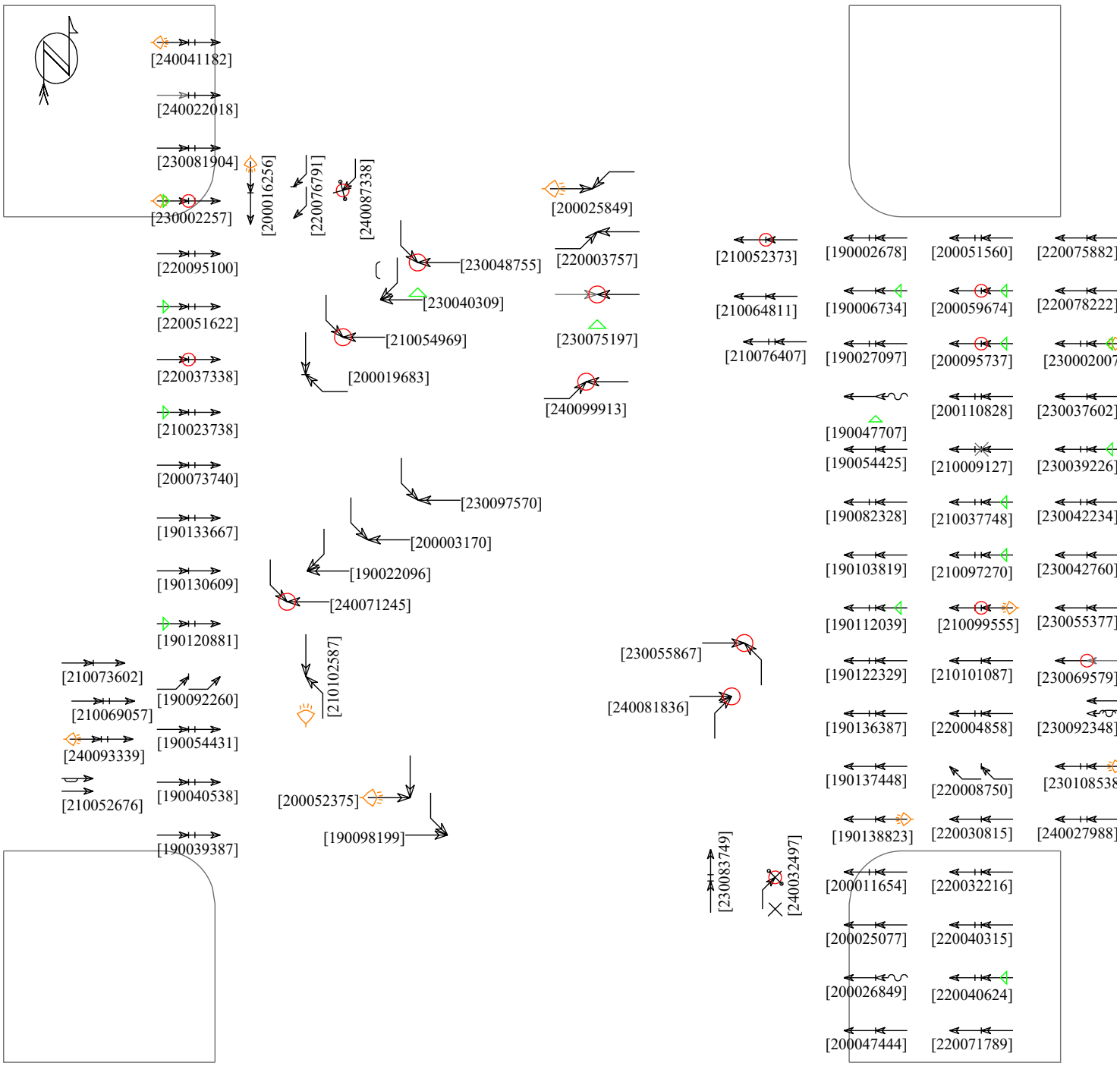
Clear

Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
190022162	5:46 pm	2/20/2019	QUEBEC ST	TRAILHEAD RD		0	0	Front to Side
190063197	7:35 am	5/30/2019	QUEBEC ST	TRAILHEAD RD		0	0	Front to Side
190077813	10:13 pm	7/4/2019	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
190097079	3:04 pm	8/26/2019	QUEBEC ST	TIMBERLINE RD		0	0	Front to Side
190122326	5:20 pm	10/30/2019	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
190140572	11:02 am	12/18/2019	QUEBEC ST	TRAILHEAD RD		1	0	Front to Side
200014684	12:30 pm	2/7/2020	QUEBEC ST	TIMBERLINE RD		0	0	Front to Front
200014688	12:59 pm	2/7/2020	TIMBERLINE RD	QUEBEC ST		0	0	Front to Rear
200055931	1:47 pm	6/11/2020	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
200055946	1:47 pm	6/11/2020	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
200103115	3:21 pm	11/17/2020	QUEBEC ST	TRAILHEAD RD		0	0	Curb
210017203	10:19 am	3/1/2021	QUEBEC ST	TRAILHEAD RD		0	0	Front to Side
210038102	6:18 pm	5/14/2021	QUEBEC ST	TRAILHEAD RD		0	0	Bicycle / Motorized Bicycle
210063991	3:40 pm	8/7/2021	QUEBEC ST	TIMBERLINE RD		0	0	Side to Side - Same Direction
220011819	12:35 pm	2/14/2022	QUEBEC ST	TIMBERLINE RD		0	0	Side to Side - Same Direction
220031762	5:31 pm	4/24/2022	TIMBERLINE RD	QUEBEC ST		0	0	Front to Side
220074727	3:40 pm	9/19/2022	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
220098757	4:30 pm	12/16/2022	QUEBEC ST	TIMBERLINE RD		0	0	Front to Front
230026941	8:32 pm	3/30/2023	QUEBEC ST	TIMBERLINE RD		0	0	Front to Side
230028413	7:58 am	4/4/2023	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
230090716	11:37 am	10/20/2023	QUEBEC ST	TIMBERLINE RD		0	0	Side to Side - Same Direction
240031129	2:25 pm	4/4/2024	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
240054224	9:56 pm	6/10/2024	QUEBEC ST	TIMBERLINE RD		3	0	Front to Front
240073059	12:41 pm	8/5/2024	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear
240089270	12:25 pm	9/24/2024	QUEBEC ST	TIMBERLINE RD		0	0	Front to Rear

UNIVERSITY BLVD & CRESTHILL LN
2019 - 2024

89 Crashes

Clear



Straight
Stopped
Unknown
Backing
Overtaking
Sideswipe

Parked
Weaving
Changing Ln
Right turn
Left turn
U-turn

Pedestrian
Bicycle
Injury
Fatality
Nighttime
DUI

3rd Vehicle
Motorcycle
Overturn

Fixed objects:
General
Animal
Public Obj
Private Obj

Crash Magic Online 11/14/2024

UNIVERSITY BLVD & CRESTHILL LN
2019 - 2024

89 Crashes

Clear

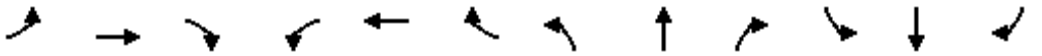
Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
190002678	2:49 pm	1/7/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190006734	3:20 pm	1/16/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190022096	2:54 pm	2/20/2019	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Side
190027097	7:52 am	3/4/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190039387	7:25 am	4/2/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190040538	3:01 pm	4/4/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190047707	8:37 am	4/22/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
190054425	6:41 am	5/8/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190054431	7:24 am	5/8/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190082328	12:17 pm	7/17/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190092260	7:15 am	8/14/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190098199	7:10 pm	8/28/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
190103819	7:15 am	9/13/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190112039	5:35 pm	10/4/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190120881	11:10 am	10/26/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190122329	5:36 pm	10/30/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190130609	3:29 pm	11/21/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190133667	9:44 am	11/30/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190136387	12:40 pm	12/7/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190137448	3:57 pm	12/10/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
190138823	4:57 pm	12/13/2019	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200003170	2:04 pm	1/9/2020	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Side
200011654	2:55 pm	1/30/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200016256	5:47 pm	2/11/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200019683	3:23 pm	2/19/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200025077	7:14 am	3/4/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200025849	7:00 pm	3/5/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Front

Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
200026849	4:24 pm	3/8/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200047444	5:34 pm	5/15/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200051560	12:00 pm	5/29/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200052375	9:00 pm	5/31/2020	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Side
200059674	12:25 pm	6/23/2020	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Rear
200073740	11:32 am	8/8/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
200095737	8:40 am	10/21/2020	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Rear
200110828	1:03 pm	12/15/2020	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210009127	4:15 pm	2/1/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210023738	7:10 am	3/25/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210037748	2:50 pm	5/13/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210052373	11:10 am	6/29/2021	UNIVERSITY BLVD	CRESTHILL LN		2	0	Front to Rear
210052676	12:28 pm	6/30/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Side to Side - Same Direction
210054969	1:30 pm	7/7/2021	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Side
210064811	2:50 pm	8/10/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210069057	3:38 pm	8/25/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210073602	3:31 pm	9/10/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210076407	2:32 pm	9/20/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210097270	7:37 am	12/6/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210099555	5:11 pm	12/14/2021	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Rear
210101087	4:27 pm	12/20/2021	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
210102587	9:46 pm	12/26/2021	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Side
220003757	4:37 pm	1/16/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
220004858	4:37 pm	1/20/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220008750	7:25 am	2/4/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220030815	7:19 am	4/21/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220032216	11:40 am	4/26/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220037338	2:57 pm	5/13/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220040315	3:14 pm	5/23/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220040624	4:59 pm	5/24/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear

Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
220051622	8:35 am	6/30/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220071789	5:15 pm	9/8/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220075882	8:05 am	9/23/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220076791	2:50 pm	9/26/2022	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Rear
220078222	4:26 pm	9/30/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
220095100	4:08 pm	12/2/2022	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230002007	5:41 pm	1/9/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230002257	5:24 pm	1/10/2023	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Rear
230037602	3:47 pm	5/3/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230039226	5:12 pm	5/8/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230040309	9:18 am	5/12/2023	CRESTHILL LN	UNIVERSITY BLVD		0	0	Side to Side - Same Direction
230042234	5:54 pm	5/18/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230042760	1:53 pm	5/20/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230048755	1:26 pm	6/8/2023	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Side
230055377	6:50 pm	6/28/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230055867	8:51 am	6/30/2023	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Side
230069579	11:55 am	8/11/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
230075197	3:17 pm	8/29/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
230081904	12:57 pm	9/21/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230083749	1:45 pm	9/27/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
230092348	7:48 am	10/26/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Side to Side - Same Direction
230097570	9:27 am	11/13/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
230108538	5:10 pm	12/20/2023	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
240022018	12:00 pm	3/5/2024	CRESTHILL LN	UNIVERSITY BLVD		0	0	Front to Rear
240027988	8:57 am	3/26/2024	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
240032497	3:30 pm	4/8/2024	CRESTHILL LN	UNIVERSITY BLVD		1	0	Bicycle / Motorized Bicycle
240041182	8:53 pm	5/3/2024	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
240071245	7:50 pm	7/30/2024	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Side
240081836	9:08 am	8/31/2024	CRESTHILL LN	UNIVERSITY BLVD		2	0	Front to Side
240087338	4:53 pm	9/17/2024	CRESTHILL LN	UNIVERSITY BLVD		1	0	Bicycle / Motorized Bicycle

Casetrackingid	Accidenttime	Accidentdate	_Primarystreet	_Crossstreet	Onroadaddress	Numberinjured	Numberkilled	Harmfulevent1
240093339	9:32 pm	10/7/2024	UNIVERSITY BLVD	CRESTHILL LN		0	0	Front to Rear
240099913	1:46 pm	10/29/2024	UNIVERSITY BLVD	CRESTHILL LN		1	0	Front to Front

Appendix F Projected Level of Service Reports

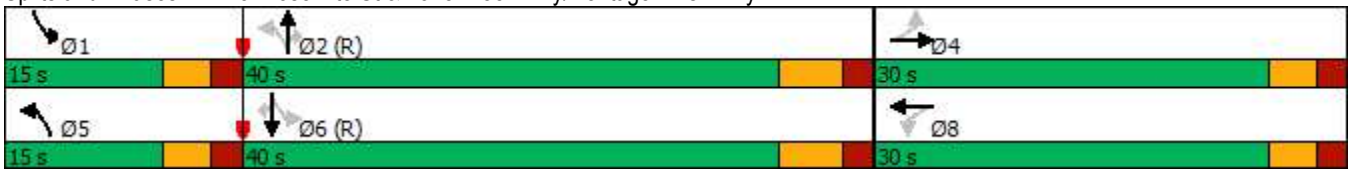


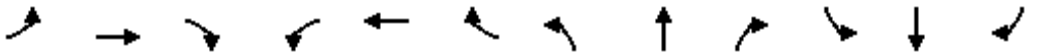
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	7	68	12	10	102	62	694	26	42	357	92
Future Volume (vph)	197	7	68	12	10	102	62	694	26	42	357	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	220		220	190		150
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.864			0.889				0.850			0.850
Flt Protected	0.950				0.995		0.950			0.950		
Satd. Flow (prot)	1770	1609	0	0	1648	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.617				0.973		0.521			0.266		
Satd. Flow (perm)	1149	1609	0	0	1611	0	970	3539	1583	495	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			136				90			98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1044			150			1043			1069	
Travel Time (s)		23.7			3.4			23.7			24.3	
Peak Hour Factor	0.85	0.85	0.85	0.75	0.75	0.75	0.90	0.90	0.90	0.94	0.94	0.94
Adj. Flow (vph)	232	8	80	16	13	136	69	771	29	45	380	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	232	88	0	0	165	0	69	771	29	45	380	98
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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	28.0	28.0		28.0	28.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0		30.0	30.0		15.0	40.0	40.0	15.0	40.0	40.0
Total Split (%)	35.3%	35.3%		35.3%	35.3%		17.6%	47.1%	47.1%	17.6%	47.1%	47.1%
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	34.0	34.0	10.0	34.0	34.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	18.0	18.0		18.0	18.0			11.0	11.0		12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	25.0	25.0			25.0		45.0	34.0	34.0	45.0	34.0	34.0
Actuated g/C Ratio	0.29	0.29			0.29		0.53	0.40	0.40	0.53	0.40	0.40
v/c Ratio	0.69	0.17			0.29		0.11	0.54	0.04	0.11	0.27	0.14

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	39.0	7.4			7.9		8.2	21.4	0.1	8.2	17.8	4.3
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	7.4			7.9		8.2	21.4	0.1	8.2	17.8	4.3
LOS	D	A			A		A	C	A	A	B	A
Approach Delay		30.3			7.9			19.6			14.4	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	109	3			11		15	162	0	9	70	0
Queue Length 95th (ft)	178	32			36		31	217	0	23	102	29
Internal Link Dist (ft)		964			70			963			989	
Turn Bay Length (ft)	125						220		220	190		150
Base Capacity (vph)	337	529			569		607	1415	687	412	1415	692
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.17			0.29		0.11	0.54	0.04	0.11	0.27	0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 45 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Pretimed			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 175: Yosemite St & Lone Tree Pwky/Heritage Hills Pkwy



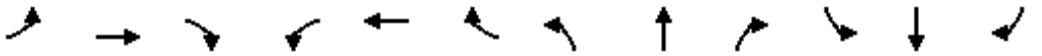


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	10	8	137	12	212	3	1498	128	155	700	6
Future Volume (vph)	21	10	8	137	12	212	3	1498	128	155	700	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	370		0	235		0	305		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.932				0.850		0.988			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1736	0	1770	1863	1583	1770	3497	0	1770	5080	0
Flt Permitted	0.748			0.743			0.298			0.091		
Satd. Flow (perm)	1393	1736	0	1384	1863	1583	555	3497	0	170	5080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				226		12			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2804			191			257			979	
Travel Time (s)		63.7			4.3			5.8			22.3	
Peak Hour Factor	0.81	0.81	0.81	0.82	0.82	0.82	0.94	0.94	0.94	0.86	0.86	0.86
Adj. Flow (vph)	26	12	10	167	15	259	3	1594	136	180	814	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	22	0	167	15	259	3	1730	0	180	821	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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	37.0	37.0		10.0	10.0	10.0	9.0	31.0		9.0	31.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	15.0	50.0		15.0	50.0	
Total Split (%)	31.6%	31.6%		31.6%	31.6%	31.6%	15.8%	52.6%		15.8%	52.6%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	11.0	44.0		11.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.5		3.0	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	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	6.0		4.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Walk Time (s)	5.0	5.0						5.0			5.0	
Flash Dont Walk (s)	27.0	27.0						11.5			11.5	
Pedestrian Calls (#/hr)	0	0						0			0	
Act Effct Green (s)	25.0	25.0		25.0	25.0	25.0	57.0	44.0		57.0	44.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.26	0.60	0.46		0.60	0.46	
v/c Ratio	0.07	0.05		0.46	0.03	0.44	0.01	1.06		0.63	0.35	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	27.0	18.7		34.2	26.3	8.5	6.3	67.7		16.5	16.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	27.0	18.7		34.2	26.3	8.5	6.3	67.7		16.5	16.1	
LOS	C	B		C	C	A	A	E		B	B	
Approach Delay		23.2			18.9			67.6			16.2	
Approach LOS		C			B			E			B	
Queue Length 50th (ft)	12	5		85	7	15	1	~609		27	146	
Queue Length 95th (ft)	29	21		132	20	58	4	#749		65	165	
Internal Link Dist (ft)		2724			111			177			899	
Turn Bay Length (ft)	500			370			235			305		
Base Capacity (vph)	366	464		364	490	583	473	1626		287	2353	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.07	0.05		0.46	0.03	0.44	0.01	1.06		0.63	0.35	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 100			
Control Type: Pretimed			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 44.3		Intersection LOS: D	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 190: Quebec St & Timberline



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	1616	35	47	1275	44	74	37	116	31	11	174
Future Volume (vph)	133	1616	35	47	1275	44	74	37	116	31	11	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	620		0	390		0	90		0	0		150
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.886				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5070	0	1770	5085	1583	1770	1650	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.750			0.464		
Satd. Flow (perm)	3433	5070	0	1770	5085	1583	1397	1650	0	864	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				117		112				183
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		382			3033			406			729	
Travel Time (s)		8.7			68.9			9.2			16.6	
Peak Hour Factor	0.93	0.93	0.93	0.89	0.89	0.89	0.76	0.76	0.76	0.95	0.95	0.95
Parking (#/hr)			0									
Adj. Flow (vph)	143	1738	38	53	1433	49	97	49	153	33	12	183
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	1776	0	53	1433	49	97	202	0	33	12	183
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(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	8			4		4
Minimum Split (s)	10.0	26.0		10.0	26.0	26.0	9.0	40.0		9.0	38.0	38.0
Total Split (s)	25.0	50.0		20.0	50.0	50.0	15.0	35.0		20.0	50.0	50.0
Total Split (%)	17.9%	35.7%		14.3%	35.7%	35.7%	10.7%	25.0%		14.3%	35.7%	35.7%
Maximum Green (s)	20.0	44.0		15.0	44.0	44.0	11.0	30.0		16.0	45.0	45.0
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Flash Dont Walk (s)		9.0			14.0	14.0		30.0			28.0	28.0
Pedestrian Calls (#/hr)		0			0	0		0			0	0
Act Effct Green (s)	20.0	49.0		15.0	44.0	44.0	52.0	40.0		61.0	45.0	45.0
Actuated g/C Ratio	0.14	0.35		0.11	0.31	0.31	0.37	0.29		0.44	0.32	0.32

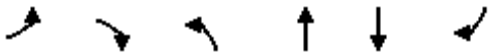
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.29	1.00		0.28	0.90	0.08	0.18	0.37		0.07	0.02	0.29
Control Delay	55.5	66.7		61.9	54.3	0.3	24.9	19.4		23.2	32.7	5.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	55.5	66.7		61.9	54.3	0.3	24.9	19.4		23.2	32.7	5.8
LOS	E	E		E	D	A	C	B		C	C	A
Approach Delay		65.8			52.9			21.2			9.7	
Approach LOS		E			D			C			A	
Queue Length 50th (ft)	60	~590		45	456	0	52	62		17	7	0
Queue Length 95th (ft)	95	#711		88	513	0	75	96		39	23	54
Internal Link Dist (ft)		302			2953			326			649	
Turn Bay Length (ft)	620			390			90					150
Base Capacity (vph)	490	1775		189	1598	577	548	551		480	598	633
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.29	1.00		0.28	0.90	0.08	0.18	0.37		0.07	0.02	0.29

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Pretimed
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 54.3 Intersection LOS: D
Intersection Capacity Utilization 66.1% ICU Level of Service C
Analysis Period (min) 15

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

Splits and Phases: 193: Cresthill Ln & University Blvd

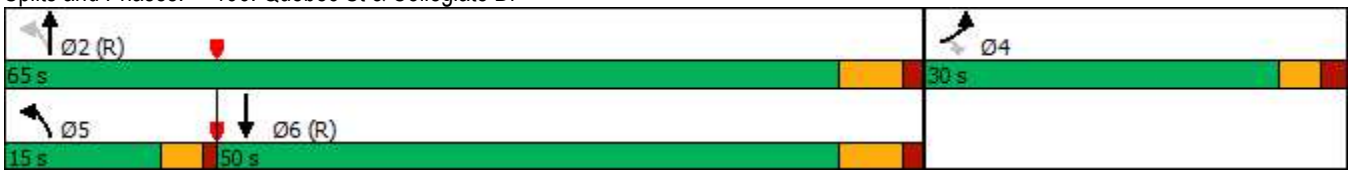


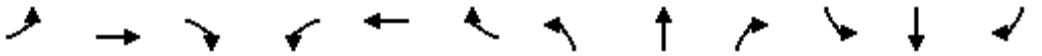
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	170	150	195	1525	723	211
Future Volume (vph)	170	150	195	1525	723	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90	0	320			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.850			0.966	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	4912	0
Flt Permitted	0.950		0.175			
Satd. Flow (perm)	1770	1583	326	5085	4912	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		290			103	
Link Speed (mph)	30			30	30	
Link Distance (ft)	123			979	2909	
Travel Time (s)	2.8			22.3	66.1	
Peak Hour Factor	0.47	0.47	0.93	0.93	0.83	0.83
Adj. Flow (vph)	362	319	210	1640	871	254
Shared Lane Traffic (%)						
Lane Group Flow (vph)	362	319	210	1640	1125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Minimum Split (s)	34.0	34.0	9.0	31.0	31.0	
Total Split (s)	30.0	30.0	15.0	65.0	50.0	
Total Split (%)	31.6%	31.6%	15.8%	68.4%	52.6%	
Maximum Green (s)	25.0	25.0	11.0	59.0	44.0	
Yellow Time (s)	3.0	3.0	3.0	4.5	4.5	
All-Red Time (s)	2.0	2.0	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0			5.0	
Flash Dont Walk (s)	24.0	24.0			11.5	
Pedestrian Calls (#/hr)	0	0			0	
Act Effct Green (s)	25.0	25.0	61.0	59.0	44.0	
Actuated g/C Ratio	0.26	0.26	0.64	0.62	0.46	
v/c Ratio	0.78	0.51	0.56	0.52	0.48	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	45.7	8.0	7.0	6.6	16.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	45.7	8.0	7.0	6.6	16.7	
LOS	D	A	A	A	B	
Approach Delay	28.0			6.7	16.7	
Approach LOS	C			A	B	
Queue Length 50th (ft)	202	13	30	182	149	
Queue Length 95th (ft)	136	0	m29	m151	167	
Internal Link Dist (ft)	43			899	2829	
Turn Bay Length (ft)	90		320			
Base Capacity (vph)	465	630	376	3158	2330	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.78	0.51	0.56	0.52	0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Pretimed			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 196: Quebec St & Collegiate Dr



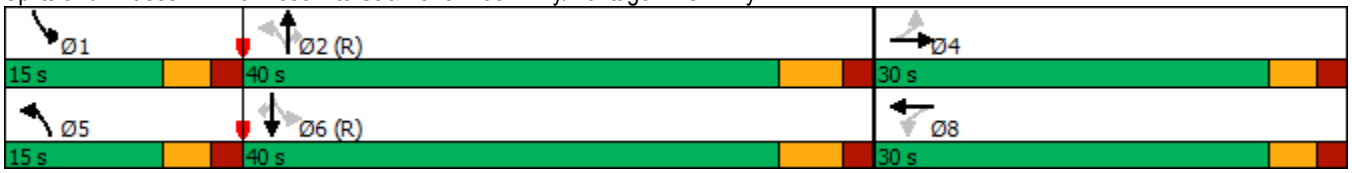


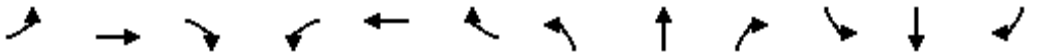
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	12	69	19	10	77	71	972	24	92	795	179
Future Volume (vph)	141	12	69	19	10	77	71	972	24	92	795	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	220		220	190		150
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.902				0.850			0.850
Flt Protected	0.950				0.991		0.950			0.950		
Satd. Flow (prot)	1770	1624	0	0	1665	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.684				0.944		0.211			0.118		
Satd. Flow (perm)	1274	1624	0	0	1586	0	393	3539	1583	220	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		97			91				90			199
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1044			150			1043			1069	
Travel Time (s)		23.7			3.4			23.7			24.3	
Peak Hour Factor	0.71	0.71	0.71	0.85	0.85	0.85	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	199	17	97	22	12	91	83	1130	28	102	883	199
Shared Lane Traffic (%)												
Lane Group Flow (vph)	199	114	0	0	125	0	83	1130	28	102	883	199
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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Minimum Split (s)	28.0	28.0		28.0	28.0		10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0		30.0	30.0		15.0	40.0	40.0	15.0	40.0	40.0
Total Split (%)	35.3%	35.3%		35.3%	35.3%		17.6%	47.1%	47.1%	17.6%	47.1%	47.1%
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	34.0	34.0	10.0	34.0	34.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	18.0	18.0		18.0	18.0			11.0	11.0		12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)	25.0	25.0			25.0		45.0	34.0	34.0	45.0	34.0	34.0
Actuated g/C Ratio	0.29	0.29			0.29		0.53	0.40	0.40	0.53	0.40	0.40
v/c Ratio	0.53	0.21			0.24		0.22	0.80	0.04	0.34	0.62	0.26

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	31.3	7.8			9.5		9.3	27.7	0.1	11.4	22.8	3.6
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	7.8			9.5		9.3	27.7	0.1	11.4	22.8	3.6
LOS	C	A			A		A	C	A	B	C	A
Approach Delay		22.7			9.5			25.9			18.6	
Approach LOS		C			A			C			B	
Queue Length 50th (ft)	89	6			13		18	273	0	22	193	0
Queue Length 95th (ft)	116	25			47		34	331	0	43	256	39
Internal Link Dist (ft)		964			70			963			989	
Turn Bay Length (ft)	125						220		220	190		150
Base Capacity (vph)	374	546			530		370	1415	687	298	1415	752
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.21			0.24		0.22	0.80	0.04	0.34	0.62	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 45 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Pretimed			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 175: Yosemite St & Lone Tree Pwky/Heritage Hills Pkwy



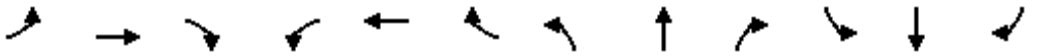


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	5	8	173	7	198	12	1173	133	203	1327	12
Future Volume (vph)	16	5	8	173	7	198	12	1173	133	203	1327	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	370		0	235		0	305		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.908				0.850		0.985			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1691	0	1770	1863	1583	1770	3486	0	1770	5080	0
Flt Permitted	0.752			0.746			0.095			0.091		
Satd. Flow (perm)	1401	1691	0	1390	1863	1583	177	3486	0	170	5080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				244		17			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2804			191			257			979	
Travel Time (s)		63.7			4.3			5.8			22.3	
Peak Hour Factor	0.75	0.75	0.75	0.74	0.74	0.74	0.97	0.97	0.97	0.87	0.87	0.87
Adj. Flow (vph)	21	7	11	234	9	268	12	1209	137	233	1525	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	18	0	234	9	268	12	1346	0	233	1539	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(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	37.0	37.0		10.0	10.0	10.0	9.0	31.0		9.5	31.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	15.0	50.0		15.0	50.0	
Total Split (%)	31.6%	31.6%		31.6%	31.6%	31.6%	15.8%	52.6%		15.8%	52.6%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	11.0	44.0		11.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	4.5		3.0	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	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	6.0		4.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Walk Time (s)	5.0	5.0						5.0			5.0	
Flash Dont Walk (s)	27.0	27.0						11.5			11.5	
Pedestrian Calls (#/hr)	0	0						0			0	
Act Effct Green (s)	25.0	25.0		25.0	25.0	25.0	57.0	44.0		57.0	44.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.26	0.60	0.46		0.60	0.46	
v/c Ratio	0.06	0.04		0.64	0.02	0.45	0.04	0.83		0.81	0.65	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	26.9	17.1		40.3	26.1	7.8	6.6	27.5		34.0	19.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	26.9	17.1		40.3	26.1	7.8	6.6	27.5		34.0	19.2	
LOS	C	B		D	C	A	A	C		C	B	
Approach Delay		22.4			23.0			27.3			21.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	10	3		125	4	11	2	355		46	313	
Queue Length 95th (ft)	23	16		162	13	36	8	451		m#173	359	
Internal Link Dist (ft)		2724			111			177			899	
Turn Bay Length (ft)	500			370			235			305		
Base Capacity (vph)	368	453		365	490	596	290	1623		287	2353	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.06	0.04		0.64	0.02	0.45	0.04	0.83		0.81	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 45 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Pretimed			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 76.7%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 190: Quebec St & Timberline

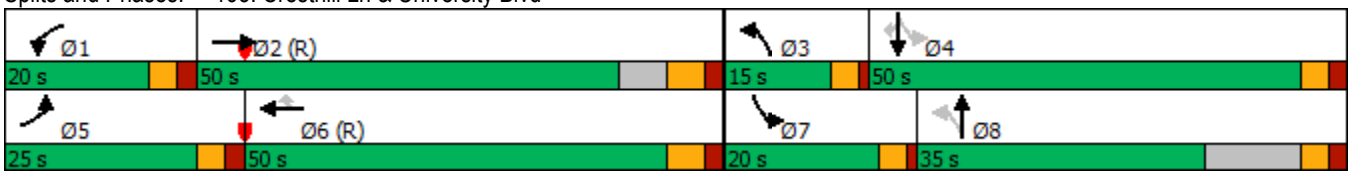


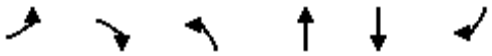
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1535	84	89	1985	84	59	26	56	67	26	231
Future Volume (vph)	210	1535	84	89	1985	84	59	26	56	67	26	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	620		0	390		0	90		0	0		150
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.898				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5045	0	1770	5085	1583	1770	1673	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.726			0.625		
Satd. Flow (perm)	3433	5045	0	1770	5085	1583	1352	1673	0	1164	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				117		64				363
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		382			3033			406			729	
Travel Time (s)		8.7			68.9			9.2			16.6	
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.88	0.88	0.88	0.55	0.55	0.55
Adj. Flow (vph)	223	1633	89	94	2089	88	67	30	64	122	47	420
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	1722	0	94	2089	88	67	94	0	122	47	420
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(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
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 (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6	8			4		4
Minimum Split (s)	10.0	26.0		10.0	26.0	26.0	9.5	40.0		9.5	38.0	38.0
Total Split (s)	25.0	50.0		20.0	50.0	50.0	15.0	35.0		20.0	50.0	50.0
Total Split (%)	17.9%	35.7%		14.3%	35.7%	35.7%	10.7%	25.0%		14.3%	35.7%	35.7%
Maximum Green (s)	20.0	44.0		15.0	44.0	44.0	11.0	30.0		16.0	45.0	45.0
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0	4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Walk Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Flash Dont Walk (s)		9.0			14.0	14.0		30.0			28.0	28.0
Pedestrian Calls (#/hr)		0			0	0		0			0	0
Act Effct Green (s)	20.0	49.0		15.0	44.0	44.0	52.0	40.0		61.0	45.0	45.0
Actuated g/C Ratio	0.14	0.35		0.11	0.31	0.31	0.37	0.29		0.44	0.32	0.32
v/c Ratio	0.46	0.97		0.50	1.31	0.15	0.13	0.18		0.21	0.08	0.56

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	58.4	60.6		68.7	181.8	3.0	24.2	15.3		25.1	33.7	9.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	58.4	60.6		68.7	181.8	3.0	24.2	15.3		25.1	33.7	9.2
LOS	E	E		E	F	A	C	B		C	C	A
Approach Delay		60.3			170.2			19.0			14.5	
Approach LOS		E			F			B			B	
Queue Length 50th (ft)	97	563		82	~892	0	35	20		66	30	37
Queue Length 95th (ft)	140	#675		143	#985	20	65	62		64	36	0
Internal Link Dist (ft)		302			2953			326			649	
Turn Bay Length (ft)	620			390			90					150
Base Capacity (vph)	490	1769		189	1598	577	535	523		576	598	755
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.46	0.97		0.50	1.31	0.15	0.13	0.18		0.21	0.08	0.56

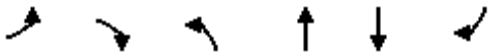
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 110			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay: 103.8		Intersection LOS: F	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 193: Cresthill Ln & University Blvd





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	174	179	160	232	1364	170
Future Volume (vph)	174	179	160	232	1364	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90	0	320			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.850			0.983	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	5085	4999	0
Flt Permitted	0.950		0.083			
Satd. Flow (perm)	1770	1583	155	5085	4999	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		230			31	
Link Speed (mph)	30			30	30	
Link Distance (ft)	123			979	2909	
Travel Time (s)	2.8			22.3	66.1	
Peak Hour Factor	0.42	0.42	0.96	0.96	0.94	0.94
Adj. Flow (vph)	414	426	167	242	1451	181
Shared Lane Traffic (%)						
Lane Group Flow (vph)	414	426	167	242	1632	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Minimum Split (s)	34.0	34.0	9.5	31.0	31.0	
Total Split (s)	30.0	30.0	15.0	65.0	50.0	
Total Split (%)	31.6%	31.6%	15.8%	68.4%	52.6%	
Maximum Green (s)	25.0	25.0	11.0	59.0	44.0	
Yellow Time (s)	3.0	3.0	3.0	4.5	4.5	
All-Red Time (s)	2.0	2.0	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Walk Time (s)	5.0	5.0			5.0	
Flash Dont Walk (s)	24.0	24.0			11.5	
Pedestrian Calls (#/hr)	0	0			0	
Act Effct Green (s)	25.0	25.0	61.0	59.0	44.0	
Actuated g/C Ratio	0.26	0.26	0.64	0.62	0.46	
v/c Ratio	0.89	0.73	0.58	0.08	0.70	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	56.9	22.5	17.8	3.2	21.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.9	22.5	17.8	3.2	21.8	
LOS	E	C	B	A	C	
Approach Delay	39.5			9.1	21.8	
Approach LOS	D			A	C	
Queue Length 50th (ft)	240	106	28	13	271	
Queue Length 95th (ft)	136	17	m54	m13	326	
Internal Link Dist (ft)	43			899	2829	
Turn Bay Length (ft)	90		320			
Base Capacity (vph)	465	586	286	3158	2331	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.89	0.73	0.58	0.08	0.70	

Intersection Summary		
Area Type:	Other	
Cycle Length: 95		
Actuated Cycle Length: 95		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green		
Natural Cycle: 75		
Control Type: Pretimed		
Maximum v/c Ratio: 0.89		
Intersection Signal Delay: 25.2		Intersection LOS: C
Intersection Capacity Utilization 61.1%		ICU Level of Service B
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 196: Quebec St & Collegiate Dr

Intersection	
Int Delay, s/veh	4.5

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	95	6	13	67	28	83
Future Vol, veh/h	95	6	13	67	28	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	79	79	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	10	16	85	45	134

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	229	112	179	0	-	0
Stage 1	112	-	-	-	-	-
Stage 2	117	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	759	941	1397	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	751	941	1397	-	-	-
Mov Cap-2 Maneuver	751	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	908	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1397	-	751	941	-	-
HCM Lane V/C Ratio	0.012	-	0.218	0.011	-	-
HCM Control Delay (s)	7.6	-	11.1	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.8	0	-	-

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	16	24	183	14	1	15	40	212	0	19	7
Future Vol, veh/h	13	16	24	183	14	1	15	40	212	0	19	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	48	48	48	55	55	55	52	52	52
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	32	48	381	29	2	27	73	385	0	37	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	379	556	44	404	370	266	50	0	0	458	0	0
Stage 1	44	44	-	320	320	-	-	-	-	-	-	-
Stage 2	335	512	-	84	50	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	579	439	1026	557	560	773	1557	-	-	1103	-	-
Stage 1	970	858	-	692	652	-	-	-	-	-	-	-
Stage 2	679	536	-	924	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	544	428	1026	491	546	773	1557	-	-	1103	-	-
Mov Cap-2 Maneuver	544	428	-	491	546	-	-	-	-	-	-	-
Stage 1	946	858	-	675	636	-	-	-	-	-	-	-
Stage 2	630	523	-	848	853	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	39.1	0.4	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1557	-	-	626	495	1103	-	-
HCM Lane V/C Ratio	0.018	-	-	0.169	0.833	-	-	-
HCM Control Delay (s)	7.4	0	-	11.9	39.1	0	-	-
HCM Lane LOS	A	A	-	B	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	8.3	0	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	79	13	10	51	52	106
Future Vol, veh/h	79	13	10	51	52	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	90	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	85	85	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	17	12	60	68	138

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	221	137	206	0	-	0
Stage 1	137	-	-	-	-	-
Stage 2	84	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	767	911	1365	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	939	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	911	1365	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10.3	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1365	-	760	911	-	-
HCM Lane V/C Ratio	0.009	-	0.137	0.019	-	-
HCM Control Delay (s)	7.7	-	10.5	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	13.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	8	4	32	183	8	1	42	30	152	0	19	7
Future Vol, veh/h	8	4	32	183	8	1	42	30	152	0	19	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	60	60	60	49	49	49	36	36	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	8	63	305	13	2	86	61	310	0	53	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	453	600	57	481	449	216	61	0	0	371	0	0
Stage 1	57	57	-	388	388	-	-	-	-	-	-	-
Stage 2	396	543	-	93	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	517	415	1009	495	505	824	1542	-	-	1188	-	-
Stage 1	955	847	-	636	609	-	-	-	-	-	-	-
Stage 2	629	520	-	914	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	477	385	1009	432	468	824	1542	-	-	1188	-	-
Mov Cap-2 Maneuver	477	385	-	432	468	-	-	-	-	-	-	-
Stage 1	885	847	-	590	565	-	-	-	-	-	-	-
Stage 2	568	482	-	849	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	33.2	1.4	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1542	-	-	747	434	1188	-	-
HCM Lane V/C Ratio	0.056	-	-	0.115	0.737	-	-	-
HCM Control Delay (s)	7.5	0	-	10.4	33.2	0	-	-
HCM Lane LOS	A	A	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	5.9	0	-	-

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	135	63	43	17	82	42	31	90	12	42	52	155
Future Vol, veh/h	135	63	43	17	82	42	31	90	12	42	52	155
Peak Hour Factor	0.84	0.84	0.84	0.74	0.74	0.74	0.69	0.69	0.69	0.49	0.49	0.49
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	75	51	23	111	57	45	130	17	86	106	316
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.1	12.9	13	26.4
HCM LOS	B	B	B	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	23%	100%	0%	100%	0%	17%
Vol Thru, %	68%	0%	59%	0%	66%	21%
Vol Right, %	9%	0%	41%	0%	34%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	135	106	17	124	249
LT Vol	31	135	0	17	0	42
Through Vol	90	0	63	0	82	52
RT Vol	12	0	43	0	42	155
Lane Flow Rate	193	161	126	23	168	508
Geometry Grp	2	5	5	5	5	2
Degree of Util (X)	0.348	0.338	0.237	0.05	0.327	0.791
Departure Headway (Hd)	6.503	7.577	6.772	7.786	7.027	5.602
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	551	474	529	459	511	650
Service Time	4.56	5.337	4.532	5.548	4.789	3.602
HCM Lane V/C Ratio	0.35	0.34	0.238	0.05	0.329	0.782
HCM Control Delay	13	14.2	11.6	11	13.2	26.4
HCM Lane LOS	B	B	B	B	B	D
HCM 95th-tile Q	1.5	1.5	0.9	0.2	1.4	7.8

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	94	55	20	85	38	34	50	14	25	64	144
Future Vol, veh/h	137	94	55	20	85	38	34	50	14	25	64	144
Peak Hour Factor	0.81	0.81	0.81	0.74	0.74	0.74	0.56	0.56	0.56	0.55	0.55	0.55
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	169	116	68	27	115	51	61	89	25	45	116	262
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.1	12.4	12.5	19.2
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	35%	100%	0%	100%	0%	11%
Vol Thru, %	51%	0%	63%	0%	69%	27%
Vol Right, %	14%	0%	37%	0%	31%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	137	149	20	123	233
LT Vol	34	137	0	20	0	25
Through Vol	50	0	94	0	85	64
RT Vol	14	0	55	0	38	144
Lane Flow Rate	175	169	184	27	166	424
Geometry Grp	2	5	5	5	5	2
Degree of Util (X)	0.314	0.342	0.333	0.057	0.315	0.665
Departure Headway (Hd)	6.46	7.284	6.508	7.568	6.832	5.647
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	496	554	473	525	644
Service Time	4.507	5.011	4.234	5.318	4.583	3.661
HCM Lane V/C Ratio	0.314	0.341	0.332	0.057	0.316	0.658
HCM Control Delay	12.5	13.8	12.5	10.8	12.7	19.2
HCM Lane LOS	B	B	B	B	B	C
HCM 95th-tile Q	1.3	1.5	1.5	0.2	1.3	5

Appendix G School Questionnaire

Review: DCSD Traffic and Pedestrian Safety Questionnaire

Respondent

2 Anonymous

02:55
Time to complete

1. What school do you represent? Score / 0 pts

Eagle Ridge Elementary

2. Please provide your name. Score / 0 pts

Doug Humphreys

3. Please provide your email. Score / 0 pts

dchumphreys@dcsdk12.org

4. Please provide feedback on crosswalks. Are crosswalks provided in adequate locations? Do families in general abide by crosswalk locations? Are additional crosswalk locations desired? Score / 0 pts

Yes. We also have LTPD and our own crossing guards monitoring all crosswalk locations.

5. Please provide feedback on pickup/drop-off. Where are your schools pickup and drop-off locations? Is there adequate length or do vehicle queues extend on to public roadways?

Score / 0 pts

They are in our parking lot in front of school entrance and on the side of the school along Timberline.

6. If available, can you provide your school's written pickup and drop-off procedures? Please send to nick.westphal@dibblecorp.com.

0 / 0 pts

No answer provided.

7. Please provide feedback on parking lot safety. Is there an adequate number of parking spaces? Are there any sight visibility challenges when exiting a parking lot (e.g. parked vehicles blocking views)? If so, where?

Score / 0 pts

Yes

8. Please provide feedback on roadway safety. Do vehicles in general follow traffic laws such as speed limits, stop signs, no parking zones, etc.?

Score / 0 pts

Yes. We have all and LTPD actively monitors all areas around the school.

9. Does your school have a designated bus drop-off area? Are there any conflicts between buses and other vehicles?

Score / 0 pts

Yes. We do not typically have issues between buses and other vehicles.

10. Please provide any general information related to vehicle and pedestrian safety at or around your school that you would like to share.

Score / 0 pts

No answer provided.

Review: DCSD Traffic and Pedestrian Safety Questionnaire

Respondent

4 Anonymous

05:27
Time to complete

1. What school do you represent? Score / 0 pts

Fox Creek

2. Please provide your name. Score / 0 pts

Cheryl Fullmer

3. Please provide your email. Score / 0 pts

cfullmer1@dcsdk12.org

4. Please provide feedback on crosswalks. Are crosswalks provided in adequate locations? Do families in general abide by crosswalk locations? Are additional crosswalk locations desired? Score / 0 pts

yes they are in the right locations. Families use the one on Collegiate and at the entrance to our parking lot but not always the ones in the parking lot.

5. Please provide feedback on pickup/drop-off. Where are your schools pickup and drop-off locations? Is there adequate length or do vehicle queues extend on to public roadways?

Score / 0 pts

Pick up and drop off is in our main parking lot. Vehicles queues extend on the Collegiate and sometimes go all the way up to to the bus loop.

6. If available, can you provide your school's written pickup and drop-off procedures? Please send to nick.westphal@dibblecorp.com.

Score / 0 pts

yes

7. Please provide feedback on parking lot safety. Is there an adequate number of parking spaces? Are there any sight visibility challenges when exiting a parking lot (e.g. parked vehicles blocking views)? If so, where?

Score / 0 pts

Our parking lot is fine in terms of parking spaces.

8. Please provide feedback on roadway safety. Do vehicles in general follow traffic laws such as speed limits, stop signs, no parking zones, etc.?

Score / 0 pts

yes, we could use a blinking light to remind them of the school hours. We also could use a possible way to exit the lot when the light on Quebec is slow.

9. Does your school have a designated bus drop-off area? Are there any conflicts between buses and other vehicles?

Score / 0 pts

yes we have a designated spot. not really.

10. Please provide any general information related to vehicle and pedestrian safety at or around your school that you would like to share.

Score / 0 pts

We could use some support in looking at the entrance and exit of the parking lot (when a car is in the entrance -waiting for the line to move - and another car comes in to park it is very very tight). Also it is sometimes difficult for a car to make a left hand turn out of the lot when there is a lot of traffic or when the light on quebec is slow to change. Doesn't happen often but when it does it is not fun.