



Preliminary Traffic Report

West of Missoula – NW
(Mullan Road)

STPS 263-1(28)6

UPN 6141000

Missoula, MT

July 2018



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Introduction

Mullan Road is a north-south roadway connecting Interstate 90 at Frenchtown, Montana to Broadway Street in Missoula, Montana. It is functionally classified as a major collector between Frenchtown and Missoula and as a minor arterial once within Missoula city limits. The existing roadway follows the same path as a historic wagon road of the same name. In fact, it was the first wagon road to cross the Rocky Mountains and access the Pacific Northwest inland. Mullan Road provides access to largely rural residences, as well as Council Grove State Park along the Clark Fork River. It also provided access to an abandoned large pulp mill near the intersection of Pulp Mill Road. The mill closed on December 14th, 2009, and was reported to be in the process of cleanup in April 2017.

This Montana Department of Transportation (MDT) project will fully reconstruct the road surface due to its deteriorating existing condition. The reconstruction will include safety enhancements such as revised curvature, widened shoulders, improved clear zone, updated signing and striping, and added rumble strips. Project limits extend between reference point (RP) 5.5, west of Deschamps Lane, and RP 10.6, north of the intersection with Pulp Mill Road. **Figure 1** shows the project vicinity.

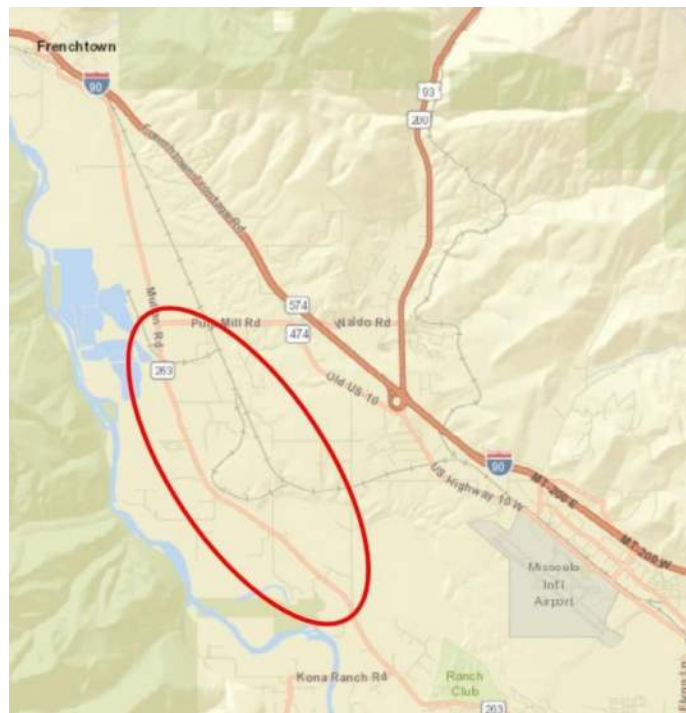


Figure 1. Project Vicinity

At the north end of the project is the Mullan Road and Pulp Mill Road intersection, a three-way stop controlled intersection with stop control on both Mullan Road approaches and the Pulp Mill Road approach. There is an uncontrolled approach to the intersection from the mill site. At the south end of the project is the intersection of Mullan Road and Deschamps Lane, a three-legged stop-controlled intersection with stop control on the Deschamps Lane approach. The



intersection currently has Deschamps Lane at an extreme skew, and this project will realign it to be perpendicular to the mainline and improve sight distance at the public approach.

The purpose of this Preliminary Traffic Report is to assess the safety and traffic operations of the existing Mullan Road and intersections as well as proposed improvements. The safety assessment will compare crash history with proposed countermeasures in order to identify whether additional improvements are needed. The operational assessment will analyze intersection performance using future volume projections to determine adequate proposed lane configurations at the two intersections previously mentioned.

Existing Conditions

Study Location

Mullan Road, also referred to as Secondary Route 263 (S-263), is functionally classified as a major collector within the project area, with speed limits of 55 miles per hour (mph) from RP 5.5 to 9.9, 45 mph from RP 9.9 to 10.0, and 35 mph from RP 10.0 to 10.6. It has one 12' travel lane in each direction and a paved shoulder width of 1' or less. It is an undivided roadway with white longitudinal pavement markings on both edges and a double yellow center line that changes with skip markings to allow passing in both directions in designated passing zones.

Just south of the mill site is a railroad crossing for a spur line that accessed the mill. This project will not make changes to the crossing. The crossing currently has train-activated flashing lights but no gate. This crossing should be considered for gates if rail traffic resumes.

There are several active transportation features along the Mullan Road segment to note. Approximately 180-feet south of the intersection with Pulp Mill Road is a continuously flashing marked pedestrian crossing across Mullan Road. It was installed to allow employees who parked on the east side of Mullan Road to cross the highway to the mill. There are stop bars on Mullan Road in each direction before the marked crosswalk. A short segment of shared use path is on the north side of the roadway between RP 6.45 and RP 6.69. No other dedicated pedestrian/bicycle/ADA features exist in the project area.

Pulp Mill Road, also referred to as S-474, is functionally classified as a major collector with a posted speed limit of 35 mph near the project area. It has one 12' travel lane in each direction and a 1' paved shoulder. It is an undivided roadway with white longitudinal pavement markings on both edges and a double yellow center line that changes with skip markings to allow passing in both directions in designated passing zones.

Deschamps Lane, also referred to as County Rd 13, is functionally classified as a local road with a speed limit of 30 mph. It has one 10' gravel travel lane in each direction and 2' to 3' dirt shoulder on either side. It is an undivided roadway with no pavement markings.

The Mullan Road and Pulp Mill Road intersection is stop controlled on the Pulp Mill Road approach. It lies just to the east of the former pulp mill, which operated from 1956 to 2009. Both the northbound and southbound Mullan Road approaches have only one approach lane and



one exit lane, and the same is true for the Pulp Mill Road approach. There are stop signs located at both Mullan Road approaches and the one Pulp Mill Road approach, and the speed limit is 35 mph on Mullan and Pulp Mill Roads near the intersection. The eastbound approach of the intersection served as the main entrance for the now closed pulp mill. The entrance is approximately 110' wide and has no stop sign or other control or positive guidance to move vehicles to the intersection.

The Mullan Road and Deschamps Lane intersection is stop controlled and has three approaches. The southbound Deschamps Lane approach is the only approach with a stop sign, with both Mullan approaches being free movements. Deschamps Lane intersects Mullan Road at a very acute angle with a channelized gravel/dirt right turn lane on Deschamps Lane that allows for right turns onto Mullan Road, and left turns from Mullan Road onto Deschamps Lane. Mullan Road has a speed limit of 55 mph through the intersection.

Previous Studies

MDT approved the project's preliminary field review report in October 2017 based on a field review that occurred on August 15th, 2016. The report included existing physical characteristics and major design features, right-of-way details, existing curve analysis, crash analysis, traffic data, and work zone safety and mobility overview. Project improvements will be based on the deficiencies that the field review report identified, which include substandard curves, minimal shoulder, and steep side slopes.

Traffic Data

AADT projections for opening year (2021) and design year (2041) on Mullan Road within the study area were provided by MDT for this analysis. Further data such as average or 85th percentile speeds, pedestrian or bicycle volumes, and origin-destination information was not available so analysis of speeds, origin-destination distribution or pedestrian facilities were not conducted. Design traffic data used for this project is presented in **Figure 2** and all provided traffic data is attached in **Appendix A**.

<u>2017</u>	AADT= <u>1,670</u>	PRESENT
<u>2021</u>	AADT= <u>1,770</u>	LETTING YEAR
<u>2041</u>	AADT= <u>2,390</u>	DESIGN YEAR
	DHV= <u>250</u>	
	D= _____	
	T= <u>7.7%</u>	
	ESAL= <u>77</u>	
	AGR= <u>1.5%</u>	

Figure 2. Design Traffic Data



Turning movement counts were taken by All Traffic Data on Tuesday, January 16th, 2018 at the Mullan Road and Pulp Mill Road and Mullan Road and Deschamps Lane intersections. The determined AM and PM peak hours are shown in **Table 1** below. Turning movement count data also is presented in **Appendix A**.

Table 1. Peak hour times

Intersection	AM Peak Hour	PM Peak Hour
Mullan Rd & Pulp Mill Rd	7:30 am to 8:30 am	4:30 pm to 5:30 pm
Mullan Rd & Deschamps Ln	7:00 am to 8:00 am	4:45 pm to 5:45 pm

Crash History

Crash data within the project area was provided by MDT in October 2017 and included all data within the Montana Highway Patrol records for the ten-year period of July 1, 2007 to June 30, 2017 for Mullan Road from RP 3.5 to 10.7.

Crashes

There was a total of 85 non-junction related crashes along Mullan Road within the project area during the study period. Two of these crashes were fatal injury crashes, 17 incapacitating injury crashes, 7 possible injury crashes, and 59 were property damage only (PDO). One fatal crash was a rear-end crash at RP 5.9 when a vehicle tried to avoid an animal in the roadway. It appears from the data that the first vehicle stopped suddenly, and two following vehicles both rear ended, being unable to stop. It occurred during the day under dry conditions on a straight and level segment of road. The second fatal crash involved an impaired driver striking a mailbox at night at RP 7.1, which lies on a horizontal curve. Roughly two-thirds of non-junction related crashes occurred at night, and 18 involved alcohol or drug impaired drivers. Most crashes were either fixed object crashes or rollover crashes. Fixed object crashes occur when a vehicle leaves the travel lane and hits an object such as a fence, embankment, or mailbox. Rollover crashes occur when a vehicle departs the roadway and rolls over. There were 42 crashes with a fixed object, making up about half of the non-junction crashes on Mullan Road while rollover crashes accounted for 23 of the crashes, or little over 25%.

In addition to the non-junction related crashes, four crashes occurred at the intersection of Mullan Road and Pulp Mill Road during the study period. Two were non-incapacitating injury crashes and the other two were PDO. Three crashes occurred at night, and one involved an alcohol or drug impaired driver. Three of the crashes were rear-end and the other a fixed object crash with a concrete barrier. Two of the rear end crashes occurred on the southbound approach of Mullan Road. The third rear-end crash was located on the westbound approach.

Three crashes occurred at the intersection of Mullan Road and Deschamps Lane during the study period. One crash was a fatal injury crash, and the other two property damage only



crashes. The fatal injury crash was a single-vehicle rollover crash involving an impaired driver. It was classified as a rollover crash even though the first harmful event was striking a pole or support. It was one of two of the crashes at the intersection that occurred at night. Of the three crashes here, one was a wild animal crash, another a rollover crash, and the other a fixed object crash.

The MDT Safety Section has provided information on the Level of Service of Safety (LOSS) for this roadway. Based on the same time parameter (July 1, 2007 through June 30, 2017), E. Mullan Road (CO31070E from RP 3.5 to RP 10.7) is operating at a LOSS IV rating for total crashes and at a LOSS III rating for fatal injury crashes. A LOSS IV rating is indicative of a high potential for crash reduction. Similarly, a LOSS III rating represents a moderate to high potential for crash reduction.

Using MDT pattern recognition tools, this section of roadway has both an observed total fixed object and off road left crash pattern. An observed crash pattern is identified as having a minimum number of 5 crashes and a 95% cumulative probability.

Intersection Operations

The *Highway Capacity Manual 2010* is the standard for determining roadway operational performance and has long used the concept of level of service (LOS) to correlate numerical traffic operational data to subjective descriptions of traffic performance at intersections. LOS ranges from “A” (best) to “F” (worst). Vehicle LOS at intersections is a measure of average vehicle delay. To identify intersection capacity deficiencies and improvement needs, HDR applied and LOS threshold of LOS C for the overall intersection operation. This is consistent with the threshold set for other traffic studies conducted in the Missoula Metropolitan Area.

Synchro 9 software was used to model and analyze the existing capacity conditions of the two study intersections on Mullan Road at Pulp Mill Road and Deschamps Lane. Turning movement counts provided by All Traffic Data were inputted into Synchro, as well as the truck percentage value of 7.7% that was provided by MDT.

During the a.m. peak hour, both intersections of Mullan Road and Pulp Mill Road and Mullan Road Deschamps Lane are estimated to operate at LOS A. All movements at both intersections are also estimated to operate at LOS A.

During the p.m. peak hour, both intersections of Mullan Road and Pulp Mill Road and Mullan Road Deschamps Lane are estimated to operate at LOS A. The southbound left movement on Deschamps Lane is estimated to operate at LOS B, and all other movements are estimated to operate at LOS A. While HCM 2010 methodology does not account for intersection skew, there were no borderline results that would become unacceptable if the skew were to have a slight negative impact.

No movement for either intersection in either peak hour exceeded a volume-to-capacity (V/C) ratio of 0.2.



Proposed Conditions

Roadway Improvements

Roadway improvements are determined by roadway facility and documented in the preliminary field report. The project will design a reconstruction of Mullan Road that will include 6' paved shoulders outside the 12' wide travel lanes. Beyond designing the roadway to current design standards, additional safety features that will be included as part of the project are listed below:

- Improve sight distance and intersection skew angle at the Deschamps Lane intersection
- Add centerline rumble strips

Since the pulp mill is no longer in operation, lower traffic volumes have prompted discussion on whether to remove the Mullan Road stop signs at Pulp Mill Road. During the PM peak hour, Mullan Road has 145 vehicles per hour (vph), and Pulp Mill Road has 92 vph. In the volume projections for 2041, this increases to 207 vph on Mullan Road and 132 vph on Pulp Mill Road. The Manual on Uniform Traffic Control Devices (MUTCD) Section 2B.07 provides guidance on multi-way stop applications. Where the 85th-percentile speed is 40 mph or less, major street traffic should be at least 300 vph for any eight hours of an average day, and minor street traffic should be at least 200 units per hour (including vehicles, bicycles, and pedestrians) during those eight hours. Also, the minor street delay using two-way stop control should be at least 30 seconds per vehicle to warrant multi-way stop control. If the 85th-percentile speed on the major street exceeds 40 mph, these minimum values can be reduced to 70 percent of the original values. All of these requirements should be met to warrant multi-way stop control. Even at 70 percent, current traffic at the Mullan Road and Pulp Mill Road intersection does not meet MUTCD Section 2B.07 criteria for *any* hour during the day. The 2041 peak hour traffic projections are close to the multi-way stop control criteria; however, even in this case they would not meet the criteria for eight hours in a day.

MUTCD Section 2B.07 also provides the following options to justify multi-way stop applications:

- Five or more crashes were reported at the intersection within a twelve-month period and could have been corrected by multi-way stop control
- There is a need to control left turn conflicts or vehicle/pedestrian conflicts
- There is inadequate sight distance from the minor street
- Multi-way stop control would benefit the operational characteristics of two intersecting residential streets of similar nature.

The Mullan Road and Pulp Mill Road intersection meets none of these criteria. Since there is no justification for a multi-way stop controlled intersection at Mullan Road and Pulp Mill Road, the stop signs on Mullan Road can be removed at MDT's discretion. If the old mill site were to be reopened or repurposed, intersection control would need to be revisited before adding more traffic to the intersection.

Without stop control on Mullan Road at Pulp Mill Road, a southbound left turn lane may provide a safety benefit. This is discussed more below.



Crash Reduction

Crash modification factors (CMFs) from the HSM provide a sense for the effectiveness of various crash countermeasures. A CMF can be multiplied by the number of existing crashes to help predict the number of future crashes. Where the HSM does not provide adequate data for improvements proposed for the project, relevant studies were found on cmfclearinghouse.org and referenced with their CMF ID number. This website uses a 5-star rating system to indicate the quality of a study's results based on study design, sample size, standard error, controls for potential bias, and data source diversity.

From a qualitative standpoint, geometric improvements to the roadway are expected to yield the most significant safety benefits. Section 13.6.2 of the HSM specifically addresses countermeasures for rural, two-lane roads, such as Mullan Road. Three countermeasures it identified are:

- Increase horizontal curve radius and length, and providing spiral transitions
- Improve superelevation of horizontal curves
- Reduce vertical grades

These modifications will help reduce the number of roadway departure crashes along a rural, two-lane roadway, the most common crash type of all three crash clusters identified along Mullan Road.

The angle between Mullan Road and Deschamps Lane at the intersection is approximately 20 degrees. In HSM Section 10.7.2, a 90-degree intersection has a CMF of 1.00, while a 20-degree intersection has a CMF of 1.32. Realigning Deschamps Lane to a 90-degree intersection would reduce the CMF by 0.32 divided by 1.32, or 24%.

Table 9-23 in the 2011 *Policy on Geometric Design of Highways and Streets*, developed by the American Association of State Highway and Transportation Officials (AASHTO), provides guidelines on when to install left turn lanes. The projected 2041 volume at Mullan Road and Pulp Mill Road is 93 vph southbound, approximately 30% of which turn left, and 111 vph northbound opposing the left turn. Even if Mullan Road had an operating speed of 60 mph, it would need eight times as many left turning vehicles to justify a left turn lane. If the stop signs are removed from both Mullan Road approaches to the intersection, a left turn lane could reduce the risk of rear-end crashes by allowing left-turning vehicles to slow down out of the way of through movement traffic.

Intersection Operations

Synchro 9 software was again used to model and analyze the operations of the two study intersections on Mullan Road at Pulp Mill Road and Deschamps Lane, this time with forecast volumes for both the letting year 2021 and the design year 2041. Turning movement counts were increased in Synchro by a growth factor for each year calculated using the forecast AADT data provided by MDT. The growth factor was equal to the forecast year AADT divided by the present year AADT. The intersections were modeled with the existing number of lanes and control types. Model alternatives were also created with added left turn lanes on the southbound



approaches of Mullan Road at intersections, as well as the Mullan Road and Pulp Mill Road intersection modeled with a stop sign only on the westbound Pulp Mill Road approach. The results described below are detailed in **Appendix B**. While HCM 2010 methodology does not account for intersection skew, there were no borderline results at Deschamps Lane that would become unacceptable if the skew were to have a slight negative impact.

The Mullan Road and Pulp Mill Road intersection is projected to operate at LOS A with an average intersection delay of 8 seconds per vehicle in 2021 and 2041 in both the a.m. and p.m. peak hours. If the stop signs on Mullan Road are removed and a southbound left turn lane is added, the average intersection delay is expected to drop to 4 to 5 seconds per vehicle. For two-way stop controlled intersections, the worst movement defines the LOS since many vehicles do not stop. The worst movement in 2021 and 2041 in the a.m. and p.m. peak hours is the westbound left turn movement and is estimated to perform at LOS B. Thus, removing the Mullan Road stop signs is estimated to provide a net benefit of 3 to 4 seconds delay reduction per vehicle without much detriment to Pulp Mill Road.

The Mullan Road and Deschamps Lane intersection is projected to operate with an average intersection delay of 1 to 2 seconds per vehicle in 2021 and 2041 in both the a.m. and p.m. peak hours. The worst movement on Deschamps Lane is the westbound left turn movement and is estimated to operate at LOS B. An added southbound left turn lane is not estimated to change the average intersection delay or LOS on the worst movement.

No movement at either intersection for any peak hour exceeded a volume-to-capacity (V/C) ratio of 0.2.

Conclusions and Recommendations

Estimated traffic operations for the intersections in the study area perform at LOS B or better for existing and forecast conditions. Therefore, the main benefit of this project, besides mitigating roadway deterioration, is the potential safety improvements for the traveling public.

Based on the analysis in this report, the following recommendations are expected to improve safety in the project area:

- Improve horizontal curvature, superelevation, and vertical curvature to meet current standards.
- Reduce vertical grades where possible.
- Widen shoulders.
- Improve side slopes and remove roadside obstacles to meet current clear zone standards.
- Install guardrail where adequate clear zone is not feasible.
- Install centerline and shoulder rumble strips.
- Consider removing stop signs on Mullan Road at Pulp Mill Road
- Realign Deschamps Lane to intersect Mullan Road at a 90-degree angle.



Appendix A: Traffic Data

**Montana Department of Transportation
Helena, Montana 59620**

Memorandum

To: Fred Bente
Helena Consultant Design
Consultant Project Supervisor

From: Becky Duke, Supervisor
Traffic Data Collection & Analysis Section

Date: August 10, 2017

Subject: STPS 263-1(28)6
West of Missoula - NW
Control No. 6141

Attached is the traffic information requested in an email dated August 7, 2017. There are no major traffic breaks within the project. Please note that the equivalency factors used to calculate ESAL values are determined using information from our weigh-in-motion sites and reflect a five-year average.

If you have any questions or need further assistance, please contact me at 6122.

CC: Pavement Analysis and Research - Helena
Project File

RAIL TRANSIT AND PLANNING DIVISION
 TRAFFIC DATA COLLECTION SECTION
Worksheet for Engineering and Planning Purposes

Project Description:

Minor Flexible
 STPS 263-1(28)6
 West of Missoula - NW
 UPN: 6141
 S-263: RP 005+0.500 to 010+0.600

Date: 10-Aug-17

*Truck Distribution**

<u>2017</u>	AADT= <u>1,670</u>	PRESENT		5	9.7 %	0.7 %
				6	16.6 %	1.3 %
				7	4.1 %	0.3 %
<u>2021</u>	AADT= <u>1,770</u>	LETTING YEAR		8	9.0 %	0.7 %
<u>2041</u>	AADT= <u>2,390</u>	DESIGN YEAR		9	46.9 %	3.6 %
	DHV= <u>250</u>			10	0.7 %	0.1 %
	D= _____			11	9.7 %	0.7 %
	T= <u>7.7%</u>			12	0.0 %	0.0 %
	ESAL= <u>77</u>			13	3.5 %	0.3 %
	AGR= <u>1.5%</u>					
					100.0 %	7.7 %

2016

AADT*= 1,640

BUS= 1.5% 25

COM= 7.7% 126

AGR= 1.5%

K Factor= 10.40%

* Distribution: 2016 Vehicle Class count
 (Site ID: 32-3A-036)

* AADT & Growth Rate: 2016 TYC

PROJECT DESCRIPTION: STPS 263-1(28)6
 West of Missoula - NW
 UPN: 6141

DATE: 10-Aug-17

PAVEMENT: RIGID:
 FLEXIBLE: X

LETTING YEAR AADT: 1,770 LETTING YEAR 2021 LANE DESIGN FACTOR: 100 %
 DESIGN YEAR AADT: 2,390 DESIGN YEAR 2041

VEHICLE TYPE	% OF TYPE	LETTING YEAR ADT	DESIGN YEAR ADT	MEAN YEAR ADT	DIRECTIONAL ADT	DESIGN LANE ADT	18K EQUIV RATE FAC	MEAN YEAR ADL
CLASS 1 & 2	46.0	814.20	1099.4	956.8	478.4	478.4	0.007	3.14
CLASS 3	44.8	792.96	1070.7	931.8	465.9	465.9	0.004	1.77
CLASS 4	1.5	26.98	36.4	31.7	15.9	15.9	0.55278	8.76
CLASS 5	0.7	13.14	17.7	15.4	7.7	7.7	0.13246	1.02
CLASS 6	1.3	22.51	30.4	26.4	13.2	13.2	0.48572	6.42
CLASS 7	0.3	5.63	7.6	6.6	3.3	3.3	0.83396	2.76
CLASS 8	0.7	12.20	16.5	14.3	7.2	7.2	0.32904	2.36
CLASS 9	3.6	63.78	86.1	74.9	37.5	37.5	1.06434	39.89
CLASS 10	0.1	0.94	1.3	1.1	0.6	0.6	0.95152	0.52
CLASS 11	0.7	13.14	17.7	15.4	7.7	7.7	0.79718	6.15
CLASS 12	0.0	0.00	0.0	0.0	0.0	0.0	0.56674	0.00
CLASS 13	0.3	4.69	6.3	5.5	2.8	2.8	1.47776	4.07
CLASS 14		0.00	0.0	0.0	0.0	0.0		0.00
CLASS 15		0.00	0.0	0.0	0.0	0.0		0.00
CLASS 16		0.00	0.0	0.0	0.0	0.0		0.00
TOTAL VALUES	7.7 100.0	136.02	183.7	159.8				76.87

AVERAGE DAILY 18 KIP EQUIVALENT AXLE LOAD: 76.87

20 YEAR EQUIVALENT AXLE LOAD: 561,162

2017 AADT = 1,670
 2021 AADT = 1770
 2041 AADT = 2390
 DHV = 250
 Direction =
 Com Trks = 7.7%
 ESAL = 76.87
 AGR = 1.500%

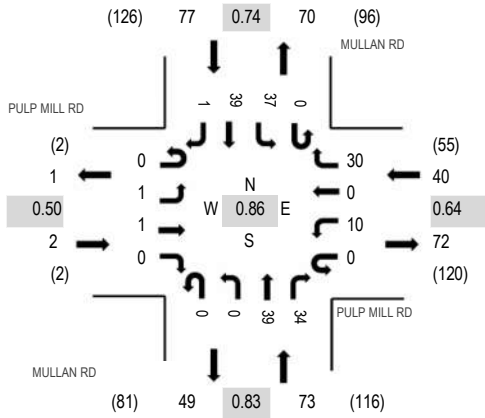
* Equivalency Factors: WIM Data (2012 to 2016)



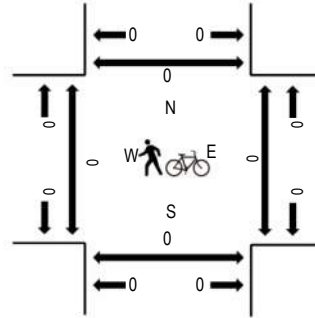
(303) 216-2439
www.alltrafficdata.net

Location: 1 MULLAN RD & PULP MILL RD AM
Date and Start Time: Tuesday, January 16, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	PULP MILL RD Eastbound				PULP MILL RD Westbound				MULLAN RD Northbound				MULLAN RD 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
7:00 AM	0	0	0	0	0	0	0	1	0	0	4	5	0	9	4	0	23	150	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	1	0	1	5	8	0	8	8	0	32	183	0	0	0	0
7:30 AM	0	1	0	0	0	2	0	6	0	0	9	12	0	6	11	0	47	192	0	0	0	0
7:45 AM	0	0	0	0	0	4	0	9	0	0	9	9	0	9	8	0	48	180	0	0	0	0
8:00 AM	0	0	0	0	0	3	0	13	0	0	13	10	0	8	9	0	56	149	0	0	0	0
8:15 AM	0	0	1	0	0	1	0	2	0	0	8	3	0	14	11	1	41		0	0	0	0
8:30 AM	0	0	0	0	0	4	0	5	0	0	7	5	0	4	10	0	35		0	0	0	0
8:45 AM	0	0	0	0	0	2	0	1	0	0	2	6	0	3	3	0	17		0	0	0	0
Count Total	0	1	1	0	0	17	0	38	0	1	57	58	0	61	64	1	299		0	0	0	0
Peak Hour	0	1	1	0	0	10	0	30	0	0	39	34	0	37	39	1	192		0	0	0	0

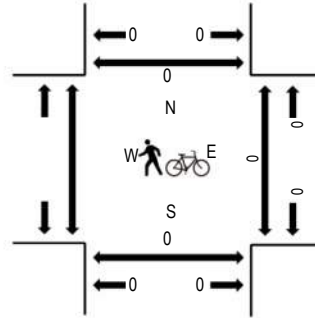
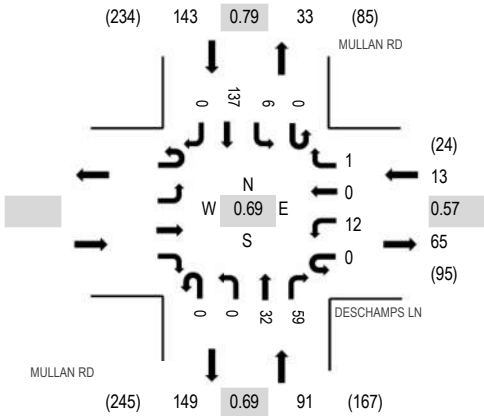


(303) 216-2439
www.alltrafficdata.net

Location: 2 MULLAN RD & DESCHAMPS LN AM
Date and Start Time: Tuesday, January 16, 2018
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

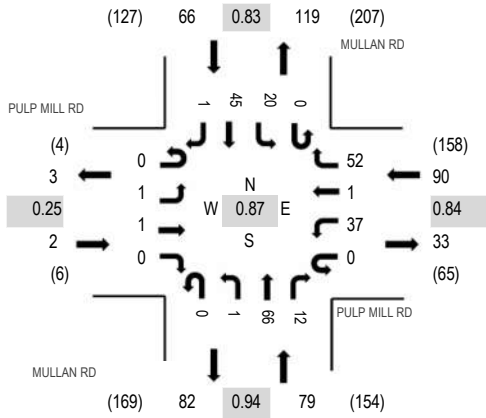
Interval Start Time	DESCHAMPS LN				MULLAN RD				MULLAN RD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound		Westbound		Northbound		Southbound		U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	0	7	10					0	3				
7:15 AM	0	1	0	1	0	0	7	7	0	1	34	0	51	240	0	0	0	
7:30 AM	0	7	0	0	0	0	10	27	0	1	44	0	89	239	0	0	0	
7:45 AM	0	4	0	0	0	0	8	15	0	1	27	0	55	202	0	0	0	
8:00 AM	0	3	0	0	0	0	10	7	0	1	24	0	45	178	0	0	0	
8:15 AM	0	1	0	0	0	0	16	9	0	0	24	0	50		0	0	0	
8:30 AM	0	5	0	1	0	0	14	5	0	2	25	0	52		0	0	0	
8:45 AM	0	0	0	1	0	0	10	5	0	1	14	0	31		0	0	0	
Count Total	0	21	0	3	0	0	82	85	0	10	224	0	425		0	0	0	
Peak Hour	0	12	0	1	0	0	32	59	0	6	137	0	247		0	0	0	



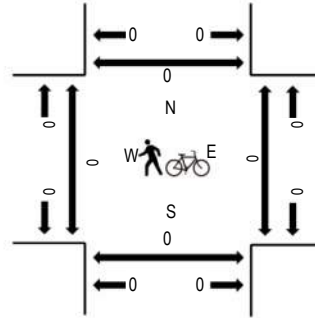
(303) 216-2439
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Location: 1 MULLAN RD & PULP MILL RD PM
Date and Start Time: Tuesday, January 16, 2018
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	PULP MILL RD Eastbound				PULP MILL RD Westbound				MULLAN RD Northbound				MULLAN RD 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
4:00 PM	0	3	0	0	0	13	0	7	0	0	16	2	0	3	11	1	56	219	0	0	0	0
4:15 PM	0	0	0	0	0	11	0	8	0	0	11	9	0	3	12	0	54	231	0	0	0	0
4:30 PM	0	0	0	0	0	11	0	16	0	0	14	1	0	5	10	1	58	237	0	0	0	0
4:45 PM	0	0	0	0	0	4	1	13	0	1	15	6	0	3	8	0	51	234	0	0	0	0
5:00 PM	0	0	0	0	0	16	0	11	0	0	17	3	0	7	14	0	68	226	0	0	0	0
5:15 PM	0	1	1	0	0	6	0	12	0	0	20	2	0	5	13	0	60		0	0	0	0
5:30 PM	0	0	0	0	0	9	0	8	0	0	17	2	0	4	15	0	55		0	0	0	0
5:45 PM	0	1	0	0	0	5	0	7	0	0	10	8	0	1	11	0	43		0	0	0	0
Count Total	0	5	1	0	0	75	1	82	0	1	120	33	0	31	94	2	445		0	0	0	0
Peak Hour	0	1	1	0	0	37	1	52	0	1	66	12	0	20	45	1	237		0	0	0	0

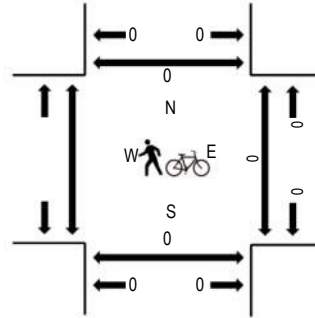
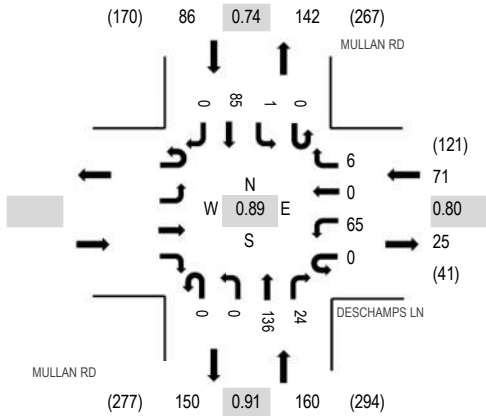


(303) 216-2439
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Location: 2 MULLAN RD & DESCHAMPS LN PM
Date and Start Time: Tuesday, January 16, 2018
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DESCHAMPS LN				MULLAN RD				MULLAN RD				Total	Rolling Hour	Pedestrian Crossings						
	Eastbound		Westbound		Northbound		Southbound		Southbound		Southbound				West	East	South	North			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right									
4:00 PM					0	13	0	0	0	0	30	6	0	0	22	0	71	289	0	0	0
4:15 PM					0	11	0	1	0	0	24	6	0	1	21	0	64	307	0	0	0
4:30 PM					0	14	0	2	0	0	35	2	0	0	19	0	72	310	0	0	0
4:45 PM					0	19	0	1	0	0	33	8	0	0	21	0	82	317	0	0	0
5:00 PM					0	20	0	3	0	0	39	5	0	0	22	0	89	296	0	0	0
5:15 PM					0	15	0	0	0	0	32	6	0	1	13	0	67		0	0	0
5:30 PM					0	11	0	2	0	0	32	5	0	0	29	0	79		0	0	0
5:45 PM					0	6	0	3	0	0	30	1	0	0	21	0	61		0	0	0
Count Total					0	109	0	12	0	0	255	39	0	2	168	0	585		0	0	0
Peak Hour					0	65	0	6	0	0	136	24	0	1	85	0	317		0	0	0



Appendix B: Traffic Operational Analysis

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	11	0	33	0	42	37	40	42	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.2	7.3	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	25%	48%
Vol Thru, %	53%	50%	0%	51%
Vol Right, %	47%	0%	75%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	40	77
LT Vol	0	1	10	37
Through Vol	39	1	0	39
RT Vol	34	0	30	1
Lane Flow Rate	79	2	43	84
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.003	0.047	0.099
Departure Headway (Hd)	3.9	4.35	3.918	4.265
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	915	812	902	839
Service Time	1.939	2.434	1.995	2.296
HCM Lane V/C Ratio	0.086	0.002	0.048	0.1
HCM Control Delay	7.3	7.4	7.2	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	6	137	32	59	12	1
Future Vol, veh/h	6	137	32	59	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	7	149	35	64	13	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	99	0	-	0	229 67
Stage 1	-	-	-	-	67 -
Stage 2	-	-	-	-	162 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1457	-	-	-	746 980
Stage 1	-	-	-	-	941 -
Stage 2	-	-	-	-	853 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1457	-	-	-	742 980
Mov Cap-2 Maneuver	-	-	-	-	742 -
Stage 1	-	-	-	-	941 -
Stage 2	-	-	-	-	849 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1457	-	-	-	742	980
HCM Lane V/C Ratio	0.004	-	-	-	0.018	0.001
HCM Control Delay (s)	7.5	0	-	-	9.9	8.7
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	12	0	35	0	45	39	43	45	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.2	7.3	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	25%	48%
Vol Thru, %	53%	50%	0%	51%
Vol Right, %	47%	0%	75%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	40	77
LT Vol	0	1	10	37
Through Vol	39	1	0	39
RT Vol	34	0	30	1
Lane Flow Rate	84	2	46	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0.091	0.003	0.05	0.105
Departure Headway (Hd)	3.908	4.472	3.935	4.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	913	789	897	837
Service Time	1.95	2.561	2.015	2.306
HCM Lane V/C Ratio	0.092	0.003	0.051	0.106
HCM Control Delay	7.3	7.6	7.2	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.2	0.4

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	6	137	32	59	12	1
Future Vol, veh/h	6	137	32	59	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	7	158	37	68	14	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	105	0	-	0	243 71
Stage 1	-	-	-	-	71 -
Stage 2	-	-	-	-	172 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1450	-	-	-	732 975
Stage 1	-	-	-	-	937 -
Stage 2	-	-	-	-	844 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1450	-	-	-	728 975
Mov Cap-2 Maneuver	-	-	-	-	728 -
Stage 1	-	-	-	-	937 -
Stage 2	-	-	-	-	840 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1450	-	-	-	728	975
HCM Lane V/C Ratio	0.005	-	-	-	0.019	0.001
HCM Control Delay (s)	7.5	0	-	-	10	8.7
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

7: Mullan Rd & Pulp Mill Rd

Intersection													
Int Delay, s/veh 3.4													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SBR
Lane Configurations													
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1	
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1	
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	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	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	0	12	0	35	0	45	39	43	45	1	
Major/Minor	Minor2	Minor1	Minor1	Minor1	Major1	Major1	Major2	Major2	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	213	215	46	196	196	65	46	0	0	84	0	0	
Stage 1	131	131	-	65	65	-	-	-	-	-	-	-	
Stage 2	82	84	-	131	131	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stig 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stig 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	744	683	1023	763	699	999	1562	-	-	1513	-	-	
Stage 1	873	788	-	946	841	-	-	-	-	-	-	-	
Stage 2	926	825	-	873	788	-	-	-	-	-	-	-	
Platoon blocked, %													
Mov Cap-1 Maneuver	702	663	1023	745	679	999	1562	-	-	1513	-	-	
Mov Cap-2 Maneuver	702	663	-	745	679	-	-	-	-	-	-	-	
Stage 1	873	765	-	946	841	-	-	-	-	-	-	-	
Stage 2	894	825	-	846	765	-	-	-	-	-	-	-	
Approach	EB	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
HCM Control Delay, s	10.3		9.1		0								3.6
HCM LOS	B		A										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR	SBL	SBT	SBR	SBL	SBR
Capacity (veh/h)	1562	-	-	682	921	1513	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	0.003	0.05	0.028	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	10.3	9.1	7.4	0	-	-	-	-	-	-
HCM Lane LOS	A	-	-	B	A	A	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔		↔	↔	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	12	0	35	0	45	39	43	45	1
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.6	7.3	7.5	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	50%	25%	100%	0%
Vol Thru, %	53%	50%	0%	0%	97%
Vol Right, %	47%	0%	75%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	40	37	40
LT Vol	0	1	10	37	0
Through Vol	39	1	0	0	39
RT Vol	34	0	30	0	1
Lane Flow Rate	84	2	46	43	46
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.094	0.003	0.052	0.062	0.061
Departure Headway (Hd)	4.006	4.589	4.043	5.264	4.746
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	887	784	891	680	754
Service Time	2.066	2.591	2.043	3	2.481
HCM Lane V/C Ratio	0.095	0.003	0.052	0.063	0.061
HCM Control Delay	7.5	7.6	7.3	8.4	7.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0	0.2	0.2	0.2

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↙	↗
Traffic Vol, veh/h	6	137	32	59	12	1
Future Vol, veh/h	6	137	32	59	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	7	158	37	68	14	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	105	0	-	0	243 71
Stage 1	-	-	-	-	71 -
Stage 2	-	-	-	-	172 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1450	-	-	-	732 975
Stage 1	-	-	-	-	937 -
Stage 2	-	-	-	-	844 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1450	-	-	-	728 975
Mov Cap-2 Maneuver	-	-	-	-	728 -
Stage 1	-	-	-	-	937 -
Stage 2	-	-	-	-	840 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1450	-	-	-	728	975
HCM Lane V/C Ratio	0.005	-	-	-	0.019	0.001
HCM Control Delay (s)	7.5	-	-	-	10	8.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
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	-	-	-	-	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	12	0	35	0	45	39	43	45	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	213	215	46	196	196	65	46	0	0	84	0	0
Stage 1	131	131	-	65	65	-	-	-	-	-	-	-
Stage 2	82	84	-	131	131	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	731	672	1007	750	689	982	1524	-	-	1476	-	-
Stage 1	858	776	-	931	829	-	-	-	-	-	-	-
Stage 2	912	814	-	858	776	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	690	652	1007	732	669	982	1524	-	-	1476	-	-
Mov Cap-2 Maneuver	690	652	-	732	669	-	-	-	-	-	-	-
Stage 1	858	753	-	931	829	-	-	-	-	-	-	-
Stage 2	880	814	-	832	753	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.4		9.2		0		3.6	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	670	905	1476	-
HCM Lane V/C Ratio	-	-	-	0.003	0.051	0.029	-
HCM Control Delay (s)	0	-	-	10.4	9.2	7.5	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	16	0	47	0	61	53	58	61	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.5	7.6	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	25%	48%
Vol Thru, %	53%	50%	0%	51%
Vol Right, %	47%	0%	75%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	40	77
LT Vol	0	1	10	37
Through Vol	39	1	0	39
RT Vol	34	0	30	1
Lane Flow Rate	113	3	62	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.004	0.072	0.144
Departure Headway (Hd)	3.961	4.72	4.153	4.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	895	762	868	823
Service Time	2.03	2.722	2.153	2.382
HCM Lane V/C Ratio	0.126	0.004	0.071	0.146
HCM Control Delay	7.6	7.7	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.5

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	6	137	32	59	12	1
Future Vol, veh/h	6	137	32	59	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	9	213	50	92	19	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	141	0	-	0	328 96
Stage 1	-	-	-	-	96 -
Stage 2	-	-	-	-	232 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1406	-	-	-	654 944
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	793 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1406	-	-	-	649 944
Mov Cap-2 Maneuver	-	-	-	-	649 -
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	787 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1406	-	-	-	649	944
HCM Lane V/C Ratio	0.007	-	-	-	0.029	0.002
HCM Control Delay (s)	7.6	0	-	-	10.7	8.8
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

7: Mullan Rd & Pulp Mill Rd

Intersection													
Int Delay, s/veh	3.6												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SBR
Lane Configurations													
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1	
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1	
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	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	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	16	0	47	0	61	53	58	61	2	

Major/Minor	Minor2	Minor1	Minor1	Major1	Major2
Conflicting Flow All	286	289	61	264	264
Stage 1	176	176	-	87	87
Stage 2	110	113	-	177	177
Critical Hdwy	7.18	6.58	6.28	7.18	6.58
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072
Pot Cap-1 Maneuver	654	611	988	677	631
Stage 1	812	742	-	906	811
Stage 2	881	790	-	811	741
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	602	585	988	654	604
Mov Cap-2 Maneuver	602	585	-	654	604
Stage 1	812	711	-	906	811
Stage 2	838	790	-	775	710

Approach	EB	WB	NB	SB			
HCM Control Delay, s	11.1	9.5	0	3.7			
HCM LOS	B	A					
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1503	-	-	593	856	1440	-
HCM Lane V/C Ratio	-	-	-	0.005	0.073	0.04	-
HCM Control Delay (s)	0	-	-	11.1	9.5	7.6	0
HCM Lane LOS	A	-	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔		↔	↔	
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	16	0	47	0	61	53	58	61	2
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.8	7.5	7.8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	50%	25%	100%	0%
Vol Thru, %	53%	50%	0%	0%	97%
Vol Right, %	47%	0%	75%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	40	37	40
LT Vol	0	1	10	37	0
Through Vol	39	1	0	0	39
RT Vol	34	0	30	0	1
Lane Flow Rate	113	3	62	58	62
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.128	0.004	0.072	0.085	0.083
Departure Headway (Hd)	4.058	4.752	4.185	5.31	4.792
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	870	757	861	672	744
Service Time	2.144	2.754	2.185	3.063	2.544
HCM Lane V/C Ratio	0.13	0.004	0.072	0.086	0.083
HCM Control Delay	7.8	7.8	7.5	8.6	8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.3	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↙	↗
Traffic Vol, veh/h	6	137	32	59	12	1
Future Vol, veh/h	6	137	32	59	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	9	213	50	92	19	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	141	0	-	0	328 96
Stage 1	-	-	-	-	96 -
Stage 2	-	-	-	-	232 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1406	-	-	-	654 944
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	793 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1406	-	-	-	650 944
Mov Cap-2 Maneuver	-	-	-	-	650 -
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	788 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1406	-	-	-	650	944
HCM Lane V/C Ratio	0.007	-	-	-	0.029	0.002
HCM Control Delay (s)	7.6	-	-	-	10.7	8.8
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
Future Vol, veh/h	1	1	0	10	0	30	0	39	34	37	39	1
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	-	-	-	-	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	16	0	47	0	61	53	58	61	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	286	289	61	264	264	87	62	0	0	113	0	0
Stage 1	176	176	-	87	87	-	-	-	-	-	-	-
Stage 2	110	113	-	177	177	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	654	611	988	677	631	955	1503	-	-	1440	-	-
Stage 1	812	742	-	906	811	-	-	-	-	-	-	-
Stage 2	881	790	-	811	741	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	603	586	988	655	606	955	1503	-	-	1440	-	-
Mov Cap-2 Maneuver	603	586	-	655	606	-	-	-	-	-	-	-
Stage 1	812	712	-	906	811	-	-	-	-	-	-	-
Stage 2	838	790	-	777	711	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.1		9.5		0		3.7	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1503	-	-	594	857	1440	-
HCM Lane V/C Ratio	-	-	-	0.005	0.073	0.04	-
HCM Control Delay (s)	0	-	-	11.1	9.5	7.6	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	40	1	57	1	72	13	22	49	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %		1%	50%	41%
Vol Thru, %		84%	50%	1%
Vol Right, %		15%	0%	58%
Sign Control		Stop	Stop	Stop
Traffic Vol by Lane		79	2	90
LT Vol		1	1	37
Through Vol		66	1	1
RT Vol		12	0	52
Lane Flow Rate		86	2	98
Geometry Grp		1	1	1
Degree of Util (X)		0.1	0.003	0.11
Departure Headway (Hd)		4.178	4.597	4.044
Convergence, Y/N		Yes	Yes	Yes
Cap		849	783	873
Service Time		2.245	2.597	2.133
HCM Lane V/C Ratio		0.101	0.003	0.112
HCM Control Delay		7.7	7.6	7.6
HCM Lane LOS		A	A	A
HCM 95th-tile Q		0.3	0	0.4

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	85	136	24	65	6
Future Vol, veh/h	1	85	136	24	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	1	92	148	26	71	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	174	0	-	0	256 161
Stage 1	-	-	-	-	161 -
Stage 2	-	-	-	-	95 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1367	-	-	-	720 869
Stage 1	-	-	-	-	853 -
Stage 2	-	-	-	-	914 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1367	-	-	-	719 869
Mov Cap-2 Maneuver	-	-	-	-	719 -
Stage 1	-	-	-	-	853 -
Stage 2	-	-	-	-	913 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1367	-	-	-	719	869
HCM Lane V/C Ratio	0.001	-	-	-	0.098	0.008
HCM Control Delay (s)	7.6	0	-	-	10.6	9.2
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	43	1	60	1	76	14	23	52	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.7	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	
Vol Left, %		1%	50%	41%	30%
Vol Thru, %		84%	50%	1%	68%
Vol Right, %		15%	0%	58%	2%
Sign Control		Stop	Stop	Stop	Stop
Traffic Vol by Lane		79	2	90	66
LT Vol		1	1	37	20
Through Vol		66	1	1	45
RT Vol		12	0	52	1
Lane Flow Rate		91	2	104	76
Geometry Grp		1	1	1	1
Degree of Util (X)		0.106	0.003	0.117	0.092
Departure Headway (Hd)		4.191	4.627	4.061	4.343
Convergence, Y/N		Yes	Yes	Yes	Yes
Cap		846	778	868	816
Service Time		2.264	2.627	2.155	2.417
HCM Lane V/C Ratio		0.108	0.003	0.12	0.093
HCM Control Delay		7.8	7.6	7.7	7.9
HCM Lane LOS		A	A	A	A
HCM 95th-tile Q		0.4	0	0.4	0.3

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	1	85	136	24	65	6
Future Vol, veh/h	1	85	136	24	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	1	98	157	28	75	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	184	0	-	0	271
Stage 1	-	-	-	-	171
Stage 2	-	-	-	-	100
Critical Hdwy	4.18	-	-	-	6.48
Critical Hdwy Stg 1	-	-	-	-	5.48
Critical Hdwy Stg 2	-	-	-	-	5.48
Follow-up Hdwy	2.272	-	-	-	3.572
Pot Cap-1 Maneuver	1355	-	-	-	706
Stage 1	-	-	-	-	845
Stage 2	-	-	-	-	909
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1355	-	-	-	705
Mov Cap-2 Maneuver	-	-	-	-	705
Stage 1	-	-	-	-	845
Stage 2	-	-	-	-	908

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1355	-	-	-	705	857
HCM Lane V/C Ratio	0.001	-	-	-	0.106	0.008
HCM Control Delay (s)	7.7	0	-	-	10.7	9.2
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0

7: Mullan Rd & Pulp Mill Rd

Intersection													
Int Delay, s/veh 4.5													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SBR
Lane Configurations													
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1	
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1	
Conflicting Peds, #/hr	0	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	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	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	43	1	60	1	76	14	23	52	1	

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	215	191	52	184
Stage 1	99	99	-	85
Stage 2	116	92	-	99
Critical Hdwy	7.18	6.58	6.28	7.18
Critical Hdwy Stg 1	6.18	5.58	-	6.18
Critical Hdwy Stg 2	6.18	5.58	-	6.18
Follow-up Hdwy	3.572	4.072	3.372	4.072
Pot Cap-1 Maneuver	729	693	999	764
Stage 1	893	802	-	908
Stage 2	874	807	-	893
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	674	681	999	753
Mov Cap-2 Maneuver	674	681	-	753
Stage 1	892	789	-	907
Stage 2	817	806	-	877

Approach	EB	WB	NB	SB				
HCM Control Delay, s	10.3	9.8	0.1	2.3				
HCM LOS	B	A						
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	NBL	SBT	SBR
Capacity (veh/h)	1515	-	-	677	859	1468	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.121	0.016	-	-
HCM Control Delay (s)	7.4	0	-	10.3	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	43	1	60	1	76	14	23	52	1
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.7	7.7	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %		1%	50%	41%	100%
Vol Thru, %		84%	50%	1%	0%
Vol Right, %		15%	0%	58%	0%
Sign Control		Stop	Stop	Stop	Stop
Traffic Vol by Lane		79	2	90	20
LT Vol		1	1	37	20
Through Vol		66	1	1	0
RT Vol		12	0	52	0
Lane Flow Rate		91	2	104	23
Geometry Grp		5	2	2	7
Degree of Util (X)		0.108	0.003	0.12	0.034
Departure Headway (Hd)		4.29	4.647	4.174	5.372
Convergence, Y/N		Yes	Yes	Yes	Yes
Cap		823	774	864	661
Service Time		2.38	2.65	2.174	3.148
HCM Lane V/C Ratio		0.111	0.003	0.12	0.035
HCM Control Delay		7.9	7.7	7.7	8.3
HCM Lane LOS		A	A	A	A
HCM 95th-tile Q		0.4	0	0.4	0.1

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	1	85	136	24	65	6
Future Vol, veh/h	1	85	136	24	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	1	98	157	28	75	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	184	0	-	0	271
Stage 1	-	-	-	-	171
Stage 2	-	-	-	-	100
Critical Hdwy	4.18	-	-	-	6.48
Critical Hdwy Stg 1	-	-	-	-	5.48
Critical Hdwy Stg 2	-	-	-	-	5.48
Follow-up Hdwy	2.272	-	-	-	3.572
Pot Cap-1 Maneuver	1355	-	-	-	706
Stage 1	-	-	-	-	845
Stage 2	-	-	-	-	909
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1355	-	-	-	705
Mov Cap-2 Maneuver	-	-	-	-	705
Stage 1	-	-	-	-	845
Stage 2	-	-	-	-	908

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1355	-	-	-	705	857
HCM Lane V/C Ratio	0.001	-	-	-	0.106	0.008
HCM Control Delay (s)	7.7	-	-	-	10.7	9.2
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
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	-	-	-	-	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	1	1	0	43	1	60	1	76	14	23	52	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	215	191	52	184	184	83	53	0	0	90	0	0
Stage 1	99	99	-	85	85	-	-	-	-	-	-	-
Stage 2	116	92	-	99	99	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	729	693	999	764	700	960	1515	-	-	1468	-	-
Stage 1	893	802	-	908	813	-	-	-	-	-	-	-
Stage 2	874	807	-	893	802	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	674	681	999	753	688	960	1515	-	-	1468	-	-
Mov Cap-2 Maneuver	674	681	-	753	688	-	-	-	-	-	-	-
Stage 1	892	789	-	907	812	-	-	-	-	-	-	-
Stage 2	817	806	-	878	789	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.3		9.8		0.1		2.3	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	677	859	1468	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.121	0.016	-
HCM Control Delay (s)	7.4	0	-	10.3	9.8	7.5	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	58	2	81	2	103	19	31	70	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.2	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	50%	41%	30%
Vol Thru, %	84%	50%	1%	68%
Vol Right, %	15%	0%	58%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	2	90	66
LT Vol	1	1	37	20
Through Vol	66	1	1	45
RT Vol	12	0	52	1
Lane Flow Rate	123	3	140	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0.15	0.004	0.167	0.13
Departure Headway (Hd)	4.387	4.815	4.295	4.545
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	745	838	791
Service Time	2.4	2.835	2.31	2.559
HCM Lane V/C Ratio	0.15	0.004	0.167	0.13
HCM Control Delay	8.2	7.9	8.2	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0	0.6	0.4

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	1	85	136	24	65	6
Future Vol, veh/h	1	85	136	24	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	2	132	211	37	101	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	249	0	-	0	365 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	135 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1282	-	-	-	623 795
Stage 1	-	-	-	-	794 -
Stage 2	-	-	-	-	877 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1282	-	-	-	622 795
Mov Cap-2 Maneuver	-	-	-	-	622 -
Stage 1	-	-	-	-	794 -
Stage 2	-	-	-	-	875 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1282	-	-	-	622	795
HCM Lane V/C Ratio	0.001	-	-	-	0.162	0.012
HCM Control Delay (s)	7.8	0	-	-	11.9	9.6
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0

7: Mullan Rd & Pulp Mill Rd

Intersection													
Int Delay, s/veh 4.7													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1	
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1	
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	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8	
Mvmt Flow	2	2	0	58	2	81	2	103	19	31	70	2	

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	289	257	71	249
Stage 1	133	133	-	115
Stage 2	156	124	-	134
Critical Hdwy	7.18	6.58	6.28	7.18
Critical Hdwy Stg 1	6.18	5.58	-	6.18
Critical Hdwy Stg 2	6.18	5.58	-	6.18
Follow-up Hdwy	3.572	4.072	3.372	4.072
Pot Cap-1 Maneuver	651	637	975	692
Stage 1	856	775	-	875
Stage 2	832	782	-	855
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	582	622	975	678
Mov Cap-2 Maneuver	582	622	-	678
Stage 1	855	757	-	874
Stage 2	757	781	-	834

Approach	EB	WB	NB	SB				
HCM Control Delay, s	11	10.4	0.1	2.3				
HCM LOS	B	B						
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1491	-	-	601	801	1430	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.175	0.022	-	-
HCM Control Delay (s)	7.4	0	-	11	10.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	58	2	81	2	103	19	31	70	2
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.9	8.2	8.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %		1%	50%	41%	100%
Vol Thru, %		84%	50%	1%	0%
Vol Right, %		15%	0%	58%	0%
Sign Control		Stop	Stop	Stop	Stop
Traffic Vol by Lane		79	2	90	20
LT Vol		1	1	37	20
Through Vol		66	1	1	0
RT Vol		12	0	52	0
Lane Flow Rate		123	3	140	31
Geometry Grp		5	2	2	7
Degree of Util (X)		0.153	0.004	0.168	0.048
Departure Headway (Hd)		4.499	4.842	4.322	5.562
Convergence, Y/N		Yes	Yes	Yes	Yes
Cap		799	740	832	646
Service Time		2.516	2.863	2.334	3.279
HCM Lane V/C Ratio		0.154	0.004	0.168	0.048
HCM Control Delay		8.3	7.9	8.2	8.6
HCM Lane LOS		A	A	A	A
HCM 95th-tile Q		0.5	0	0.6	0.2

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	1	85	136	24	65	6
Future Vol, veh/h	1	85	136	24	65	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	150	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	2	132	211	37	101	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	249	0	-	0	365 230
Stage 1	-	-	-	-	230 -
Stage 2	-	-	-	-	135 -
Critical Hdwy	4.18	-	-	-	6.48 6.28
Critical Hdwy Stg 1	-	-	-	-	5.48 -
Critical Hdwy Stg 2	-	-	-	-	5.48 -
Follow-up Hdwy	2.272	-	-	-	3.572 3.372
Pot Cap-1 Maneuver	1282	-	-	-	623 795
Stage 1	-	-	-	-	794 -
Stage 2	-	-	-	-	877 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1282	-	-	-	622 795
Mov Cap-2 Maneuver	-	-	-	-	622 -
Stage 1	-	-	-	-	794 -
Stage 2	-	-	-	-	876 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1282	-	-	-	622	795
HCM Lane V/C Ratio	0.001	-	-	-	0.162	0.012
HCM Control Delay (s)	7.8	-	-	-	11.9	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
Future Vol, veh/h	1	1	0	37	1	52	1	66	12	20	45	1
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	-	-	-	-	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	2	2	0	58	2	81	2	103	19	31	70	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	289	257	71	249	249	112	72	0	0	121	0	0
Stage 1	133	133	-	115	115	-	-	-	-	-	-	-
Stage 2	156	124	-	134	134	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.58	6.28	7.18	6.58	6.28	4.18	-	-	4.18	-	-
Critical Hdwy Stg 1	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.58	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.072	3.372	3.572	4.072	3.372	2.272	-	-	2.272	-	-
Pot Cap-1 Maneuver	651	637	975	692	644	925	1491	-	-	1430	-	-
Stage 1	856	775	-	875	789	-	-	-	-	-	-	-
Stage 2	832	782	-	855	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	583	623	975	679	629	925	1491	-	-	1430	-	-
Mov Cap-2 Maneuver	583	623	-	679	629	-	-	-	-	-	-	-
Stage 1	855	758	-	874	788	-	-	-	-	-	-	-
Stage 2	757	781	-	835	757	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11		10.4		0.1		2.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1491	-	-	602	801	1430	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.175	0.022	-	-
HCM Control Delay (s)	7.4	0	-	11	10.4	7.6	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.1	-	-