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HIGHLAND RD & TAUMARSON RD MEMORANDUM

DATE: July 24th, 2024

TO: Mike Laughery, PE | City of Walla Walla
Greg Jellison, PE | Consor

FROM: Scott Mansur, PE, PTOE, RSP1 | DKS Associates
Travis Larson, PE | DKS Associates
Hallie Turk, EI | DKS Associates

SCOTT M. MANSUR STATE OF WASHINGTON Digitally Signed 07.24 -07'00' 44848 REGISTERED PROFESSIONAL ENGINEER
Exp. 5/24/25

SUBJECT: Walla Walla Myra Road Extension P24572-000
Supplemental Analysis – Highland Road and Taumarson Road

INTRODUCTION

This memorandum presents the results of the supplemental analysis for the Myra Road Extension project in Walla Walla, Washington. This supplemental analysis focused on the City of Walla Walla intersections at Highland Road and Taumarson Road along the future extension of Myra Road. The study area is shown in Figure 1.

The Myra Road Extension project from SR 125 to Taumarson Road was identified as an improvement project in the City of Walla Walla Comprehensive Transportation Plan. As part of the Myra Road Extension project, an Intersection Control Evaluation (ICE) was recently completed and submitted to WSDOT for the existing intersection of Myra Road/SR 125, with a final recommendation of a multi-lane roundabout.

The purpose of this memorandum, per request by the City of Walla Walla, is to complement the previous ICE memorandum by documenting operational conditions at the future City intersections of Myra Road/Highland Road and Myra Road/Taumarson Road to determine the preferred traffic control alternatives to safely and efficiently deliver the expected intersection volumes in the study area.

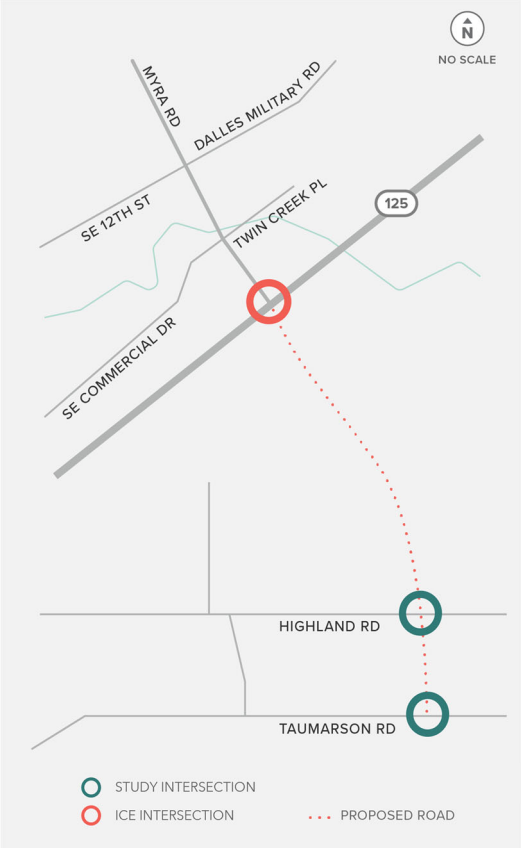

FIGURE 1. STUDY AREA

EXISTING CONDITIONS

LAND USE CONTEXT

Highland Road is a two-lane local street that provides access to residential developments and provides a local street connection to Plaza Way in the east. The posted speed is 25 miles per hour (mph). The pedestrian network along Highland Road has significant gaps, with intermittent sidewalk present only on the south shoulder. There are no dedicated bicycle facilities. There is also a pronounced vertical curve just east of the proposed future connection to Myra Road.

Taumarson Road is a two-lane major arterial roadway connecting SR 125 to Plaza Way. The posted speed is 35 mph. A wide sidewalk/multi-use path is present on the south side of the roadway, and there are on-street bicycle lanes in both directions. Taumarson Road has numerous private driveway accesses to single-family residential homes on its south side.

The future extension of Myra Road will be constructed to major arterial roadway standards. The extension will pass through Highland Road and connect to Taumarson Road through tax parcel 360731520016 that is currently owned by the City of Walla Walla. The parcel is located east of Molten Court and west of Havstad Drive. The Myra Road extension will provide access to multifamily housing and retail developments on the vacant lot north of Highland Road.

EXISTING TRAFFIC VOLUMES (WITH HEAVY VEHICLE & SPEED DATA)

Tube counts were collected on Highland Road (east of Molten Court) and Taumarson Road (west of Havstad Drive) on Tuesday, March 19th, 2024.

Highland Road had an average daily traffic (ADT) volume of approximately 630 vehicles, with an AM peak volume of 43 vehicles and a PM peak volume of 62 vehicles. No trailer heavy vehicles were recorded throughout the day. The ADT and heavy vehicle volumes are typical of a local street. The 85th percentile speed was approximately 35 mph, 10 mph over the posted speed limit of 25 mph.

Taumarson Road had an ADT of approximately 3,200 vehicles, with an AM peak volume of 224 vehicles and a PM peak volume of 310 vehicles. Only three trailer heavy vehicles were recorded throughout the day. The 85th percentile speed was approximately 41 mph, 6 mph over the posted speed limit of 35 mph.

INTERSECTION OPERATIONS ANALYSIS

ANALYSIS SCENARIOS

Traffic operations analysis was conducted at both study intersections for two analysis year scenarios: year of construction (2025) and the 20-year construction horizon (2045). The following traffic control alternatives were evaluated for each intersection.

- Two-Way Stop Control: This configuration assumes stop control on Highland Road at Myra Road/Highland Road and on Myra Road at Myra Road/Taumarson Road.[1]
- All-Way Stop Control: This configuration assumes stop control on all approaches at both intersections.
- Traffic Signal: This configuration assumes actuated-uncoordinated signals at both intersections. At the Myra Road/Taumarson Road intersection, this also included a 50 ft left-turn lane on the eastbound approach and a separate 50 ft right-turn lane and left-turn lane on the southbound approach.
- Compact Roundabout: This configuration assumes a single-lane compact roundabout with an inscribed diameter of approximately 70 feet, which includes mountable splitter islands and center island for trucks with trailers.[2]

FUTURE VOLUME DEVELOPMENT

Future intersection turning movement volumes for these intersections were developed utilizing the methodology and results previously developed for the Myra Road/SR 125 ICE, which included using prior forecasts established as part of the Walla Walla Comprehensive Transportation Plan[3] and trip generation evaluations for the conceptual development land uses provided by the City of Walla Walla along the street extension. These volumes were combined with the existing segment volumes at the proposed connection points and balanced across the system. Volumes for each scenario can be found in the appendix.

Highland Road is a local street and, therefore, is not in the Walla Walla Valley MPO transportation model, so reasonable estimations were made for how vehicles would utilize the parallel east-west routes of Highland Road and Taumarson Road based on the origin-destination zones and overall network layout. A sensitivity assessment of the percent of vehicles choosing to use Highland over Taumarson was conducted for routes that could most significantly be altered with this new connection, establishing the final volume sets.

REQUIRED OPERATING STANDARDS

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. The City of Walla Walla allows intersections along Myra Road to function at LOS D and a v/c ratio of 0.90.[4]

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[1] Even for a 3-leg intersection like Myra Road/Taumarson Road, the standard 'Two-Way Stop Control' is applied per HCM.
[2] WSDOT has separate classifications for 'Mini' and 'Compact' roundabouts (Chapter 1320.02, WSDOT Design Manual, 2023).
[3] Transportation, Walla Walla Comprehensive Plan, June 2018.
[4] Exhibit 57, Transportation Standards, Walla Walla Comprehensive Plan, June 2018.

2025 INTERSECTION OPERATIONS

Traffic operations for the year of construction (2025) at the study intersections were evaluated for the AM and PM peak hours based on the Highway Capacity Manual (HCM) 6th Edition methodology.[5] The results were then compared with applicable standards. Table 1 lists the estimated v/c ratio, delay, and LOS of the study intersection.

TABLE 1: YEAR OF CONSTRUCTION (2025) INTERSECTION OPERATIONS

STUDY INTERSECTION/ TRAFFIC CONTROL	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C RATIO	DELAY (SECS)	LOS	V/C RATIO	DELAY (SECS)	LOS
MYRA ROAD/HIGHLAND ROAD							
TWO-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.10	10.4	B	0.18	13.1	B
ALL-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.21	8.5	A	0.46	11.5	B
TRAFFIC SIGNAL	LOS D v/c ≤ 0.90	0.46	7.1	A	0.46	5.1	A
COMPACT ROUNDABOUT	LOS D v/c ≤ 0.90	0.13	3.6	A	0.27	4.7	A
MYRA ROAD/TAUMARSON ROAD							
TWO-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.18	12.1	B	0.56	20.4	C
ALL-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.31	9.0	A	0.53	13.2	B
TRAFFIC SIGNAL	LOS D v/c ≤ 0.90	0.24	13.6	B	0.42	10.5	B
COMPACT ROUNDABOUT	LOS D v/c ≤ 0.90	0.20	4.1	A	0.31	5.3	A

TWO-WAY STOP-CONTROL:
v/c = Critical Lane v/c Ratio
Delay = Critical Lane Delay
LOS = Level of Service (Major/Minor)

ALL-WAY STOP-CONTROL:
v/c = Critical Lane v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

TRAFFIC SIGNAL:
v/c = Total Intersection v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

ROUNDABOUT:
v/c = Critical Lane v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

As shown, the intersections are expected to meet City of Walla Walla standards at the year of construction (2025) for any of the traffic control alternatives.

[5] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

2045 INTERSECTION OPERATIONS

Traffic operations for the 20-year horizon (2045) at the study intersections were evaluated for the AM and PM peak hours based on the Highway Capacity Manual (HCM) 6th Edition methodology.[6] The results were then compared with applicable standards. Table 2 lists the estimated v/c ratio, delay, and LOS of the study intersection.

TABLE 2: FUTURE 2045 INTERSECTION OPERATIONS

STUDY INTERSECTION/ TRAFFIC CONTROL	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C RATIO	DELAY (SECS)	LOS	V/C RATIO	DELAY (SECS)	LOS
MYRA ROAD/HIGHLAND ROAD							
TWO-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.14	11.3	B	0.25	14.5	B
ALL-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.28	9.1	A	0.52	12.8	B
TRAFFIC SIGNAL	LOS D v/c ≤ 0.90	0.43	7.4	A	0.48	5.4	A
COMPACT ROUNDABOUT	LOS D v/c ≤ 0.90	0.16	3.9	A	0.30	5.0	A
MYRA ROAD/TAUMARSON ROAD							
TWO-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.26	13.8	B	0.73	31.7	D
ALL-WAY STOP-CONTROL	LOS D v/c ≤ 0.90	0.42	10.4	B	0.65	17.2	C
TRAFFIC SIGNAL	LOS D v/c ≤ 0.90	0.30	14.1	B	0.47	11.1	B
COMPACT ROUNDABOUT	LOS D v/c ≤ 0.90	0.27	4.6	A	0.35	5.9	A

TWO-WAY STOP-CONTROL:
v/c = Critical Lane v/c Ratio
Delay = Critical Lane Delay
LOS = Level of Service (Major/Minor)

ALL-WAY STOP-CONTROL:
v/c = Critical Lane v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

TRAFFIC SIGNAL:
v/c = Total Intersection v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

ROUNDABOUT:
v/c = Critical Lane v/c Ratio
Delay = Average Intersection Delay
LOS = Average Intersection Level of Service

As shown, the intersections are also expected to meet City of Walla Walla standards at the 20-year horizon (2045) for any of the traffic control alternatives.

Based purely on operational capacity, any of the traffic control alternatives are estimated to maintain standards set for by the city. Therefore, additional factors were considered to recommend the most appropriate traffic control solution.

[6] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

ADDITIONAL CONSIDERATIONS

SAFETY

Each traffic control alternative has varying levels of safety benefits over other alternatives. All-way stop controlled intersections provide a safety benefit because vehicles are required to stop at each approach before entering the intersection, reducing travel speeds at all approaches. Traffic signals provide a safety benefit by dedicating unique phases to specific vehicle movements. However, roundabouts are proven to provide a greater vehicle safety benefit because many of the crash types resulting in severe or fatal crashes, such as head-on and angle crashes, are significantly reduced by orienting traffic flows in one single direction and reducing the number of potential conflict points. Additionally, due to the geometry of the roundabout, vehicle speeds are reduced to 15 or 20 mph while circulating the intersection, decreasing the risk of high-severity crashes.

Table 3 lists crash reduction factors (CRFs) for common traffic control changes. As shown, converting a two-way stop-control intersection to roundabout control reduces fatal and injury crashes by 82%, a slightly higher crash reduction than conversion from two-way stop control to all-way stop-control and also conversion from signal control to roundabout control.

TABLE 3: PROVEN CRASH REDUCTION AFTER TRAFFIC CONTROL CHANGES

TRAFFIC CONTROL CHANGE	CRF	APPLICABLE CRASH TYPES AND SEVERITY
TWO-WAY STOP CONTROL TO ROUNDABOUT	82% [7]	All Crash Types Fatal and Injury Crashes
SIGNAL TO ROUNDABOUT	78% [8]	All Crash Types Fatal and Injury Crashes
TWO-WAY STOP CONTROL TO ALL-WAY STOP CONTROL	77% [9]	All Crash Types Fatal and Injury Crashes

Regarding multimodal safety, all-way stops, signals, and roundabouts each provide unique safety benefits for pedestrians and bicyclists. An all-way stop allows for consistent pedestrian crossing opportunities because all vehicles have to stop at the intersection. At a signalized intersection, though, dedicated pedestrian phases allow people to cross with no vehicle conflicts. This is especially preferred by people with disabilities such as sight impairment. By contrast, pedestrians and bicyclists must wait for vehicles to yield at roundabouts. However, roundabouts also reduce vehicle speeds and pedestrian crossing distances through the use of splitter islands.

For these reasons, a roundabout provides the greatest safety benefit and, therefore, is the recommended traffic control device for both the Highland Road and Taumarson Road intersections.

[7] CMF ID: 211, Federal Highway Administration, CMFClearinghouse.org.

[8] CMF ID: 226, Federal Highway Administration, CMFClearinghouse.org.

[9] CMF ID: 3128, Simpson and Hummer, 2010 (3-star study). CMFClearinghouse.org.

NEIGHBORHOOD TRAFFIC CALMING STRATEGIES

Neighborhood traffic calming measures focus on reducing travel speeds and vehicle volumes on local and residential streets. With the extension of Myra Road and the proposed retail and residential developments south of SR 125, there is an anticipated increase in additional vehicle volume on Highland Road and Taumarson Road. This is especially important for Highland Road, as it is currently a local street with low traffic volumes.

HIGHLAND ROAD TRAFFIC CALMING

As stated previously, Highland Road currently accommodates approximately 630 vehicles per day and the 85th percentile speed is approximately 10 mph over the posted speed limit of 25 mph. With both the new extension and planned development in the vicinity of the project, the ADT is expected to increase on Highland Road. To manage traffic volume levels and speeds along Highland Road, the City should consider implementing neighborhood traffic calming measures to reduce vehicle speeds, increase safety, and manage traffic volumes (divert east/west through traffic to Taumarson Road).

Examples of neighborhood traffic calming measures that could be implemented on Highland Road (between Myra Road and Plaza Way) include speed feedback radar signs, vertical deflection measures (speed humps, speed cushions), horizontal deflection measures (curb extensions, chicanes/chockers), and police enforcement. The measures should also discourage heavy vehicles from using Highland Road.

It is recommended that the City install the following traffic calming measures on Highland Road as part of the street improvement project:

- Install one speed feedback radar sign in each direction on Highland Road approximately between Lexington Place and Southview Drive.
- Install one speed hump (or other vertical deflection measure) between Ironwood Drive and Leroux Lane for both eastbound and westbound traffic.
- Install one speed hump (or other vertical deflection measure) between Lancer Drive and Ping Drive for both eastbound and westbound traffic.

FINDINGS AND RECOMMENDATIONS

In preparation for the Myra Road extension from SR 125 to Taumarson Road recommended by the Walla Walla Comprehensive Transportation Plan, the future intersections at Myra Road/Highland Road and Myra Road/Taumarson Road were evaluated to determine the preferred traffic control alternatives needed to efficiently deliver the expected intersection volumes in the study area, but, even more importantly, provide the high level of safety performance and neighborhood traffic management desired on Highland Road and Taumarson Road. A summary of the findings and final recommendation are presented below:

- Both Myra Road/Highland Road and Myra Road/Taumarson Road were analyzed with four different traffic control alternatives: two-way stop control, all-way stop control, traffic signal, and compact roundabout. The volume sets analyzed included the year of construction (2025) and 20-year horizon (2045).
- Volumes for the future intersections of Myra Road/Highland Road and Myra Road/Taumarson Road for the year of construction (2025) and 20-year horizon (2045) used forecasts from the Walla Walla Comprehensive Plan Transportation Element and planning level trip generation estimates for the proposed retail and residential development that are expected north of Highland Road.
- In 2025 and 2045, both intersections are expected to operate within City operating standards under all traffic control alternatives.
- The safety performance of a roundabout outperforms a traffic signal, all-way stop, and two-way stop. Roundabouts also reduce speeds better compared to other traffic control alternatives, while maintaining traffic flow and mitigating rear-end crashes.
- The City should consider neighborhood traffic calming measures along Highland Road between Myra Road and Plaza Way that include speed feedback radar signs and vertical deflection measures like speed humps.

Based on this assessment, compact roundabouts are the recommended traffic control alternative for both the Myra Road/Highland Road and Myra Road/Taumarson Road intersections. The geographical location, vehicle volumes, and low heavy vehicle traffic will allow for a smaller roundabout footprint, but the compact roundabout still provides the safety benefits and low traffic delays that are desired for the two locations.

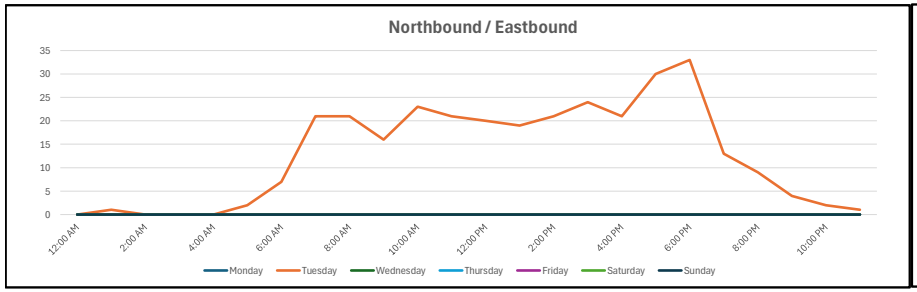
APPENDIX

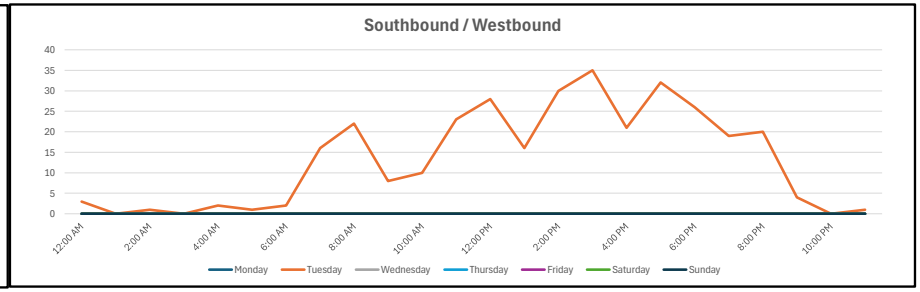
A. Tube Counts
B. Intersection Turning Movement Volume Sets
C. HCM Reports

Vehicle Volume Report - Hourly

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

Time	Monday 3/25/24			Tuesday 3/19/24			Wednesday 3/20/24			Thursday 3/21/24			Friday 3/22/24			Saturday 3/23/24			Sunday 3/24/24			3 Day Avg Tue-Thu		5 Day Avg Mon-Fri		7 Day Avg Mon-Sun	
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	EB	WB	EB	WB
12:00 AM	-	-	-	0	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	7	2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	21	16	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	21	22	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	16	8	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	-	-	-	23	10	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	-	-	-	21	23	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	20	28	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	19	16	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	-	-	-	21	30	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	-	-	-	24	35	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	-	-	-	21	21	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 PM	-	-	-	30	32	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 PM	-	-	-	33	26	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 PM	-	-	-	13	19	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 PM	-	-	-	9	20	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 PM	-	-	-	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM	-	-	-	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM - 9:00 AM	-	-	-	**49**	**40**	**89**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM - 6:00 PM	-	-	-	**75**	**88**	**163**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM - 7:00 PM	-	-	-	**277**	**269**	**546**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 12:00 AM	-	-	-	**309**	**320**	**629**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent	-	-	-	***49.1%***	***50.9%***	***100.0%***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM Peak	-	-		**11:00 AM**	**12:00 PM**		-	-		-	-		-	-		-	-		-	-							
PM Peak	-	-		**5:00 PM**	**6:00 PM**		-	-		-	-		-	-		-	-		-	-							





Vehicle Classification Report - Hourly

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

		FHWA Vehicle Classification - Total Study												
	Total	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Eastbound	309	3	207	74	1	18	0	6	0	0	0	0	0	0
Percent	*100.0%*	*1.0%*	*67.0%*	*23.9%*	*0.3%*	*5.8%*	*0.0%*	*1.9%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Westbound	320	4	208	83	5	20	0	0	0	0	0	0	0	0
Percent	*100.0%*	*1.3%*	*65.0%*	*25.9%*	*1.6%*	*6.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	629	7	415	157	6	38	0	6	0	0	0	0	0	0
Percent	*100.0%*	*1.1%*	*66.0%*	*25.0%*	*1.0%*	*6.0%*	*0.0%*	*1.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Classification Report (Eastbound - 03/19/2024)

Tuesday		Eastbound												
		Classes												
	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
3/19/24														
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0
6:00 AM	7	0	3	4	0	0	0	0	0	0	0	0	0	0
7:00 AM	21	0	14	4	0	2	0	1	0	0	0	0	0	0
8:00 AM	21	0	16	4	0	0	0	1	0	0	0	0	0	0
9:00 AM	16	0	5	4	0	5	0	2	0	0	0	0	0	0
10:00 AM	23	0	12	9	1	0	0	1	0	0	0	0	0	0
11:00 AM	21	0	12	8	0	1	0	0	0	0	0	0	0	0
12:00 PM	20	0	13	5	0	2	0	0	0	0	0	0	0	0
1:00 PM	19	0	10	7	0	2	0	0	0	0	0	0	0	0
2:00 PM	21	1	15	4	0	1	0	0	0	0	0	0	0	0
3:00 PM	24	2	18	4	0	0	0	0	0	0	0	0	0	0
4:00 PM	21	0	17	2	0	1	0	1	0	0	0	0	0	0
5:00 PM	30	0	19	9	0	2	0	0	0	0	0	0	0	0
6:00 PM	33	0	25	6	0	2	0	0	0	0	0	0	0	0
7:00 PM	13	0	13	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	9	0	9	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	4	0	3	1	0	0	0	0	0	0	0	0	0	0
10:00 PM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	49	0	33	12	0	2	0	2	0	0	0	0	0	0
3:00 PM - 6:00 PM	75	2	54	15	0	3	0	1	0	0	0	0	0	0
6:00 AM - 7:00 PM	277	3	179	70	1	18	0	6	0	0	0	0	0	0
12:00 AM - 12:00 AM	309	3	207	74	1	18	0	6	0	0	0	0	0	0
Percent	*100%*	*1.0%*	*67.0%*	*23.9%*	*0.3%*	*5.8%*	*0.0%*	*1.9%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Classification Report (Westbound - 03/19/2024)

Tuesday		Westbound												
		Classes												
	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
3/19/24														
12:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	16	0	10	4	1	1	0	0	0	0	0	0	0	0
8:00 AM	22	0	14	6	1	1	0	0	0	0	0	0	0	0
9:00 AM	8	0	6	1	0	1	0	0	0	0	0	0	0	0
10:00 AM	10	0	7	2	0	1	0	0	0	0	0	0	0	0
11:00 AM	23	0	14	6	1	2	0	0	0	0	0	0	0	0
12:00 PM	28	0	15	6	1	6	0	0	0	0	0	0	0	0
1:00 PM	16	0	8	7	0	1	0	0	0	0	0	0	0	0
2:00 PM	30	1	19	10	0	0	0	0	0	0	0	0	0	0
3:00 PM	35	0	24	10	1	0	0	0	0	0	0	0	0	0
4:00 PM	21	2	13	3	0	3	0	0	0	0	0	0	0	0
5:00 PM	32	0	22	9	0	1	0	0	0	0	0	0	0	0
6:00 PM	26	1	20	5	0	0	0	0	0	0	0	0	0	0
7:00 PM	19	0	12	5	0	2	0	0	0	0	0	0	0	0
8:00 PM	20	0	12	7	0	1	0	0	0	0	0	0	0	0
9:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	40	0	25	11	2	2	0	0	0	0	0	0	0	0
3:00 PM - 6:00 PM	88	2	59	22	1	4	0	0	0	0	0	0	0	0
6:00 AM - 7:00 PM	269	4	173	70	5	17	0	0	0	0	0	0	0	0
12:00 AM - 12:00 AM	320	4	208	83	5	20	0	0	0	0	0	0	0	0
Percent	*100%*	*1.3%*	*65.0%*	*25.9%*	*1.6%*	*6.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Vehicle Speed Report - Hourly

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

Total Study Speed Summary		
	Eastbound	**Westbound**
Average Speed	29.8 mph	30.6 mph
50th Percentile	30.7 mph	30.9 mph
85th Percentile	35.3 mph	36.0 mph
95th Percentile	38.6 mph	40.3 mph

Speed Range (MPH) - Total Study																					
	Total	**0-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	**80-85**	**85-90**	**90-95**	**95-100**	**100+**
Eastbound	309	0	7	14	32	80	127	40	8	1	0	0	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.0%*	*2.3%*	*4.5%*	*10.4%*	*25.9%*	*41.1%*	*12.9%*	*2.6%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Westbound	320	0	4	14	30	86	121	48	13	3	0	0	1	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.0%*	*1.3%*	*4.4%*	*9.4%*	*26.9%*	*37.8%*	*15.0%*	*4.1%*	*0.9%*	*0.0%*	*0.0%*	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	629	0	11	28	62	166	248	88	21	4	0	0	1	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.0%*	*1.7%*	*4.5%*	*9.9%*	*26.4%*	*39.4%*	*14.0%*	*3.3%*	*0.6%*	*0.0%*	*0.0%*	*0.2%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Speed Report (Eastbound - 03/19/2024)

Tuesday	Eastbound																					
3/19/24	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	2	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	7	0	0	0	1	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	21	0	1	2	2	6	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	21	0	1	2	1	7	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	16	0	0	3	1	2	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	23	0	0	2	3	4	8	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	21	0	0	1	1	5	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	20	0	0	0	2	3	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	19	0	0	0	3	6	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	21	0	1	1	1	2	14	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	24	0	3	0	0	12	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	21	0	0	2	5	4	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	30	0	0	0	5	8	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	33	0	0	1	1	7	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	13	0	1	0	3	5	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	9	0	0	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	4	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**49**	**0**	**2**	**4**	**4**	**13**	**15**	**10**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**75**	**0**	**3**	**2**	**10**	**24**	**28**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**277**	**0**	**6**	**14**	**26**	**66**	**121**	**38**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**309**	**0**	**7**	**14**	**32**	**80**	**127**	**40**	**8**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.0%***	***2.3%***	***4.5%***	***10.4%***	***25.9%***	***41.1%***	***12.9%***	***2.6%***	***0.3%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**30.7 mph**																					
85th Percentile	**35.3 mph**																					
95th Percentile	**38.6 mph**																					

Site Description: HIGHLAND RD E.O MOLTEN CT
Site Number: 3
Start Date: 3/19/2024
End Date: 3/19/2024

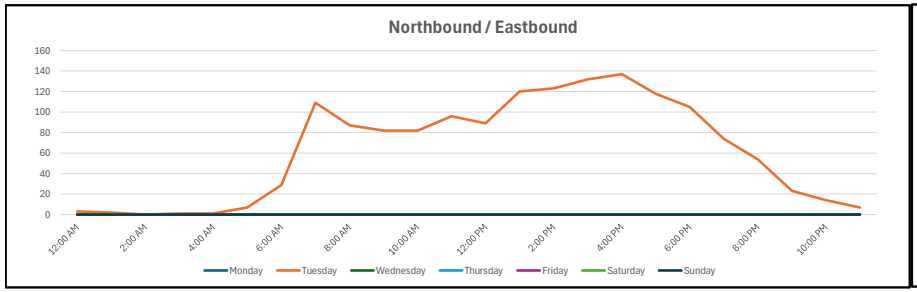
Vehicle Speed Report (Westbound - 03/19/2024)

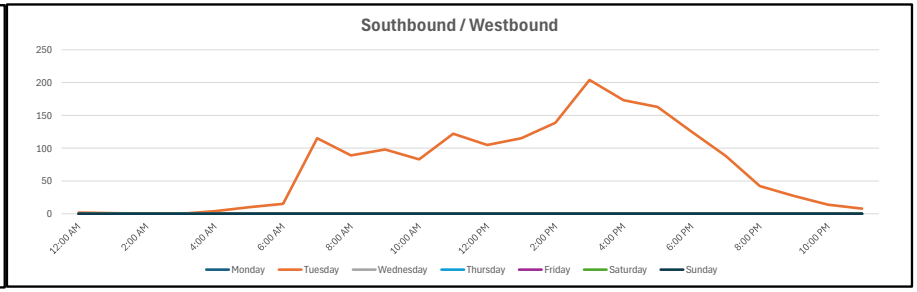
Tuesday	Westbound																				
3/19/24	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	3	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	16	0	0	1	1	2	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	22	0	0	2	1	6	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	8	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	10	0	0	0	1	2	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	23	0	0	1	5	5	9	1	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	28	0	0	2	2	9	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	16	0	0	1	0	5	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	30	0	0	1	4	7	7	8	3	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	35	0	0	1	2	12	15	4	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	21	0	0	3	1	3	13	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	32	0	0	0	0	9	12	7	3	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	26	0	0	0	6	7	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	19	0	1	2	2	7	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	20	0	2	0	4	5	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	4	0	1	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**40**	**0**	**0**	**3**	**2**	**9**	**16**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**88**	**0**	**0**	**4**	**3**	**24**	**40**	**11**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**269**	**0**	**0**	**12**	**23**	**69**	**110**	**42**	**11**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**320**	**0**	**4**	**14**	**30**	**86**	**121**	**48**	**13**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.0%***	***1.3%***	***4.4%***	***9.4%***	***26.9%***	***37.8%***	***15.0%***	***4.1%***	***0.9%***	***0.0%***	***0.0%***	***0.3%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**30.9 mph**																				
85th Percentile	**36.0 mph**																				
95th Percentile	**40.3 mph**																				

Vehicle Volume Report - Hourly

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Time	Monday 3/25/24			Tuesday 3/19/24			Wednesday 3/20/24			Thursday 3/21/24			Friday 3/22/24			Saturday 3/23/24			Sunday 3/24/24			3 Day Avg Tue-Thu		5 Day Avg Mon-Fri		7 Day Avg Mon-Sun	
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	EB	WB	EB	WB
12:00 AM	-	-	-	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	7	10	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	29	15	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	109	115	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	87	89	176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	82	98	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	-	-	-	82	83	165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	-	-	-	96	122	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	89	105	194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	-	-	-	120	115	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	-	-	-	123	139	262	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	-	-	-	132	204	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	-	-	-	137	173	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 PM	-	-	-	118	163	281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 PM	-	-	-	105	125	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 PM	-	-	-	74	88	162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 PM	-	-	-	54	42	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 PM	-	-	-	23	27	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM	-	-	-	14	14	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM	-	-	-	7	8	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM - 9:00 AM	-	-	-	**225**	**219**	**444**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM - 6:00 PM	-	-	-	**387**	**540**	**927**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM - 7:00 PM	-	-	-	**1309**	**1546**	**2855**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 12:00 AM	-	-	-	**1495**	**1742**	**3237**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent	-	-	-	***46.2%***	***53.8%***	***100.0%***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM Peak	-	-		**7:00 AM**	**8:00 AM**		-	-		-	-		-	-		-	-		-	-							
PM Peak	-	-		**3:00 PM**	**4:00 PM**		-	-		-	-		-	-		-	-		-	-							





Vehicle Classification Report - Hourly

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

		FHWA Vehicle Classification - Total Study												
	Total	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Eastbound	1495	9	1140	272	11	60	1	1	0	1	0	0	0	0
Percent	*100.0%*	*0.6%*	*76.3%*	*18.2%*	*0.7%*	*4.0%*	*0.1%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Westbound	1742	14	1334	327	9	54	0	2	0	2	0	0	0	0
Percent	*100.0%*	*0.8%*	*76.6%*	*18.8%*	*0.5%*	*3.1%*	*0.0%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	3237	23	2474	599	20	114	1	3	0	3	0	0	0	0
Percent	*100.0%*	*0.7%*	*76.4%*	*18.5%*	*0.6%*	*3.5%*	*0.0%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Classification Report (Eastbound - 03/19/2024)

Tuesday		Eastbound												
		Classes												
	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
3/19/24														
12:00 AM	3	0	2	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	7	0	3	4	0	0	0	0	0	0	0	0	0	0
6:00 AM	29	0	22	6	0	1	0	0	0	0	0	0	0	0
7:00 AM	109	0	81	23	0	5	0	0	0	0	0	0	0	0
8:00 AM	87	0	68	17	1	0	0	0	0	1	0	0	0	0
9:00 AM	82	1	64	16	1	0	0	0	0	0	0	0	0	0
10:00 AM	82	0	56	23	0	3	0	0	0	0	0	0	0	0
11:00 AM	96	0	68	20	0	8	0	0	0	0	0	0	0	0
12:00 PM	89	0	68	17	1	3	0	0	0	0	0	0	0	0
1:00 PM	120	1	86	19	0	14	0	0	0	0	0	0	0	0
2:00 PM	123	2	92	26	0	2	1	0	0	0	0	0	0	0
3:00 PM	132	1	108	17	4	2	0	0	0	0	0	0	0	0
4:00 PM	137	2	100	22	3	10	0	0	0	0	0	0	0	0
5:00 PM	118	0	96	19	0	3	0	0	0	0	0	0	0	0
6:00 PM	105	2	79	16	1	6	0	1	0	0	0	0	0	0
7:00 PM	74	0	60	12	0	2	0	0	0	0	0	0	0	0
8:00 PM	54	0	47	7	0	0	0	0	0	0	0	0	0	0
9:00 PM	23	0	19	3	0	1	0	0	0	0	0	0	0	0
10:00 PM	14	0	10	4	0	0	0	0	0	0	0	0	0	0
11:00 PM	7	0	7	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	225	0	171	46	1	6	0	0	0	1	0	0	0	0
3:00 PM - 6:00 PM	387	3	304	58	7	15	0	0	0	0	0	0	0	0
6:00 AM - 7:00 PM	1309	9	988	241	11	57	1	1	0	1	0	0	0	0
12:00 AM - 12:00 AM	1495	9	1140	272	11	60	1	1	0	1	0	0	0	0
Percent	*100%*	*0.6%*	*76.3%*	*18.2%*	*0.7%*	*4.0%*	*0.1%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Classification Report (Westbound - 03/19/2024)

Tuesday		Westbound												
		Classes												
	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
3/19/24														
12:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	4	0	2	2	0	0	0	0	0	0	0	0	0	0
5:00 AM	10	0	9	1	0	0	0	0	0	0	0	0	0	0
6:00 AM	15	0	12	2	0	1	0	0	0	0	0	0	0	0
7:00 AM	115	1	86	22	1	4	0	0	0	1	0	0	0	0
8:00 AM	89	1	72	14	1	1	0	0	0	0	0	0	0	0
9:00 AM	98	1	77	18	0	2	0	0	0	0	0	0	0	0
10:00 AM	83	0	64	14	1	4	0	0	0	0	0	0	0	0
11:00 AM	122	0	86	30	0	6	0	0	0	0	0	0	0	0
12:00 PM	105	0	75	24	1	5	0	0	0	0	0	0	0	0
1:00 PM	115	2	78	29	0	6	0	0	0	0	0	0	0	0
2:00 PM	139	1	102	29	1	5	0	1	0	0	0	0	0	0
3:00 PM	204	1	150	44	3	4	0	1	0	1	0	0	0	0
4:00 PM	173	2	136	25	1	9	0	0	0	0	0	0	0	0
5:00 PM	163	0	133	26	0	4	0	0	0	0	0	0	0	0
6:00 PM	125	2	99	22	0	2	0	0	0	0	0	0	0	0
7:00 PM	88	2	71	14	0	1	0	0	0	0	0	0	0	0
8:00 PM	42	1	36	5	0	0	0	0	0	0	0	0	0	0
9:00 PM	27	0	23	4	0	0	0	0	0	0	0	0	0	0
10:00 PM	14	0	14	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	8	0	8	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	219	2	170	38	2	6	0	0	0	1	0	0	0	0
3:00 PM - 6:00 PM	540	3	419	95	4	17	0	1	0	1	0	0	0	0
6:00 AM - 7:00 PM	1546	11	1170	299	9	53	0	2	0	2	0	0	0	0
12:00 AM - 12:00 AM	1742	14	1334	327	9	54	0	2	0	2	0	0	0	0
Percent	*100%*	*0.8%*	*76.6%*	*18.8%*	*0.5%*	*3.1%*	*0.0%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Vehicle Speed Report - Hourly

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Total Study Speed Summary		
	Eastbound	**Westbound**
Average Speed	37.1 mph	37.4 mph
50th Percentile	36.8 mph	37.3 mph
85th Percentile	40.8 mph	41.3 mph
95th Percentile	44.1 mph	44.0 mph

Speed Range (MPH) - Total Study																					
	Total	**0-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	**80-85**	**85-90**	**90-95**	**95-100**	**100+**
Eastbound	1495	0	3	3	7	50	345	791	244	40	9	0	0	1	0	0	1	0	1	0	0
Percent	*100.0%*	*0.0%*	*0.2%*	*0.2%*	*0.5%*	*3.3%*	*23.1%*	*52.9%*	*16.3%*	*2.7%*	*0.6%*	*0.0%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*
Westbound	1742	0	1	8	12	45	321	945	351	50	5	3	0	0	0	0	1	0	0	0	0
Percent	*100.0%*	*0.0%*	*0.1%*	*0.5%*	*0.7%*	*2.6%*	*18.4%*	*54.2%*	*20.1%*	*2.9%*	*0.3%*	*0.2%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	3237	0	4	11	19	95	666	1736	595	90	14	3	0	1	0	0	2	0	1	0	0
Percent	*100.0%*	*0.0%*	*0.1%*	*0.3%*	*0.6%*	*2.9%*	*20.6%*	*53.6%*	*18.4%*	*2.8%*	*0.4%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Speed Report (Eastbound - 03/19/2024)

Tuesday	Eastbound																					
3/19/24	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	3	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	7	0	0	0	1	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	29	0	0	0	0	0	11	16	1	1	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	109	0	0	0	0	3	22	66	14	4	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	87	0	0	0	0	0	4	62	19	1	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	82	0	0	0	2	3	13	39	23	2	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	82	0	0	0	3	0	22	45	10	2	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	96	0	0	0	1	3	21	56	10	5	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	89	0	0	0	0	5	14	50	15	3	2	0	0	0	0	0	0	0	0	0	0
1:00 PM	120	0	1	2	0	6	30	52	23	5	1	0	0	0	0	0	0	0	0	0	0
2:00 PM	123	0	0	0	0	3	35	60	23	1	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	132	0	0	0	0	1	39	71	16	0	2	0	0	1	0	0	1	0	1	0	0
4:00 PM	137	0	1	0	0	7	42	65	18	3	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	118	0	0	0	0	3	26	56	27	6	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	105	0	1	0	0	1	25	57	20	1	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	74	0	0	1	0	6	17	42	6	1	1	0	0	0	0	0	0	0	0	0	0
8:00 PM	54	0	0	0	0	5	15	21	11	2	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	23	0	0	0	0	0	2	15	5	1	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	14	0	0	0	0	1	4	7	1	1	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	7	0	0	0	0	0	0	5	1	1	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**225**	**0**	**0**	**0**	**0**	**3**	**37**	**144**	**34**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**387**	**0**	**1**	**0**	**0**	**11**	**107**	**192**	**61**	**9**	**3**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
6:00 AM - 7:00 PM	**1309**	**0**	**3**	**2**	**6**	**35**	**304**	**695**	**219**	**34**	**8**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
12:00 AM - 12:00 AM	**1495**	**0**	**3**	**3**	**7**	**50**	**345**	**791**	**244**	**40**	**9**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
Percent	***100%***	***0.0%***	***0.2%***	***0.2%***	***0.5%***	***3.3%***	***23.1%***	***52.9%***	***16.3%***	***2.7%***	***0.6%***	***0.0%***	***0.0%***	***0.1%***	***0.0%***	***0.0%***	***0.1%***	***0.0%***	***0.1%***	***0.0%***	***0.0%***
50th Percentile	**36.8 mph**																					
85th Percentile	**40.8 mph**																					
95th Percentile	**44.1 mph**																					

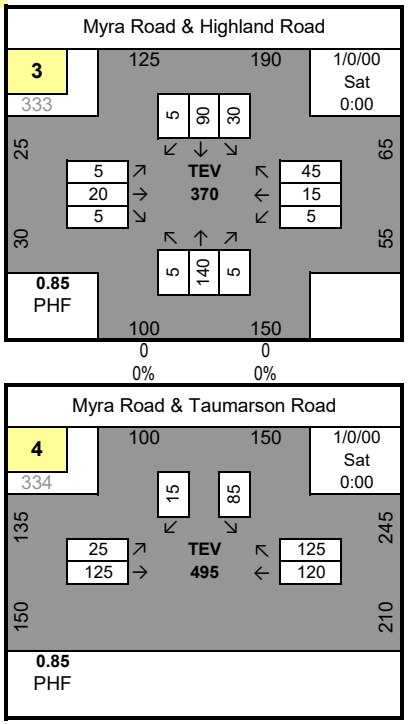
Site Description: TAUMARSON RD W.O HAVSTAD DR
Site Number: 4
Start Date: 3/19/2024
End Date: 3/19/2024

Vehicle Speed Report (Westbound - 03/19/2024)

Tuesday	Westbound																					
3/19/24	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	4	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	10	0	0	0	0	0	2	5	2	0	1	0	0	0	0	0	0	0	0	0	0
6:00 AM	15	0	0	0	0	2	3	7	3	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	115	0	0	0	0	5	10	60	31	9	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	89	0	0	0	0	1	13	52	19	2	1	1	0	0	0	0	0	0	0	0	0
9:00 AM	98	0	0	1	1	2	20	56	16	2	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	83	0	0	1	0	2	16	49	12	3	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	122	0	0	0	1	3	27	62	23	5	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	105	0	0	0	0	6	18	53	25	3	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	115	0	0	2	2	5	19	59	28	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	139	0	0	2	1	1	23	89	20	3	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	204	0	0	1	3	5	34	113	42	4	0	1	0	0	0	0	1	0	0	0	0
4:00 PM	173	0	0	0	1	5	30	99	33	5	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	163	0	0	0	0	3	28	92	36	3	1	0	0	0	0	0	0	0	0	0	0
6:00 PM	125	0	0	1	2	3	26	60	26	7	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	88	0	1	0	1	1	27	42	14	1	1	0	0	0	0	0	0	0	0	0	0
8:00 PM	42	0	0	0	0	0	12	23	6	1	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	27	0	0	0	0	0	6	10	8	2	0	1	0	0	0	0	0	0	0	0	0
10:00 PM	14	0	0	0	0	0	3	7	4	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	8	0	0	0	0	0	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**219**	**0**	**0**	**0**	**0**	**8**	**26**	**119**	**53**	**11**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**540**	**0**	**0**	**1**	**4**	**13**	**92**	**304**	**111**	**12**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**1546**	**0**	**0**	**8**	**11**	**43**	**267**	**851**	**314**	**46**	**3**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**1742**	**0**	**1**	**8**	**12**	**45**	**321**	**945**	**351**	**50**	**5**	**3**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.0%***	***0.1%***	***0.5%***	***0.7%***	***2.6%***	***18.4%***	***54.2%***	***20.1%***	***2.9%***	***0.3%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**37.3 mph**																					
85th Percentile	**41.3 mph**																					
95th Percentile	**44.0 mph**																					

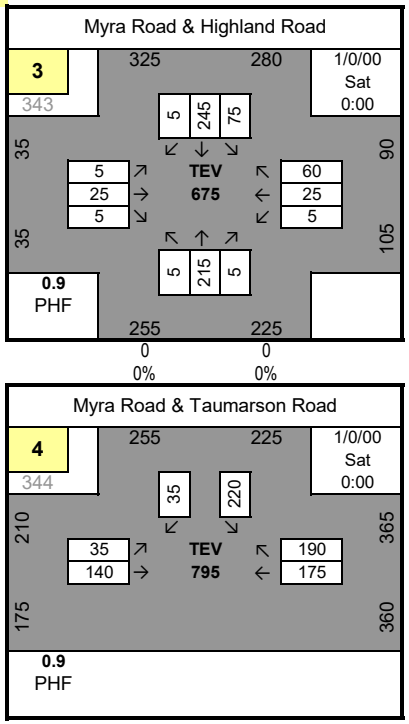
2025 Year of Opening Build AM Peak

330



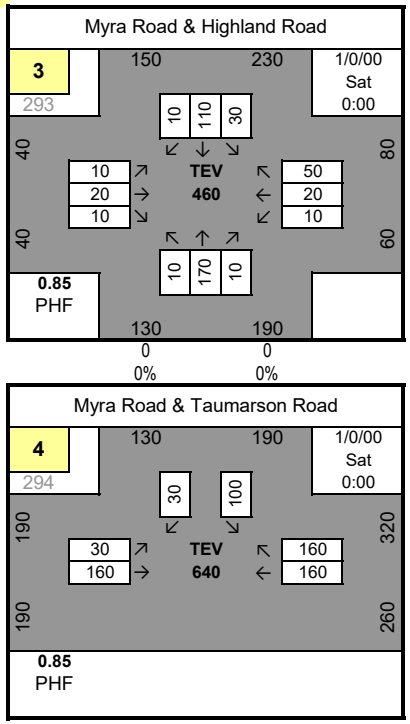
2025 Year of Opening Build PM Peak

340



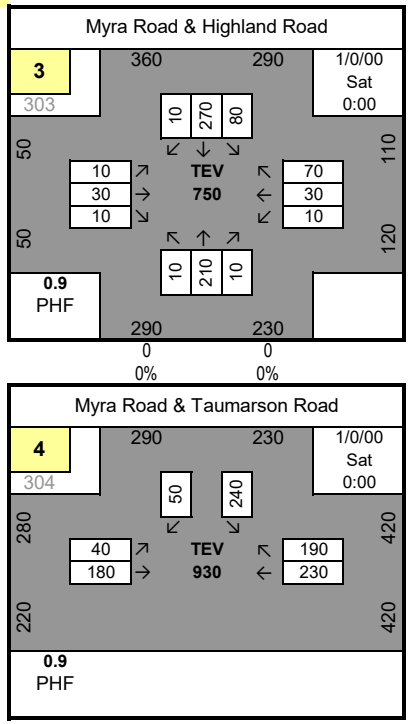
2045 Horizon Build AM Peak

290



2045 Horizon Build PM Peak

300



Myra Road - Additional Analysis
2025 Year of Opening Results

Inputs in yellow

Summary Table

Software/Method	Intersection	Control Type	V/C Ratio	Delay	LOS
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - TWSC - AM	TWSC	0.10	10.4	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - TWSC - AM	TWSC	0.18	12.1	B
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - AWSC - AM	AWSC	0.21	8.5	A
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - AWSC - AM	AWSC	0.31	9.0	A
Synchro HCM 6th Signal	Myra Rd & Highland Rd - Signal - AM	Signal	0.46	7.1	A
Synchro HCM 6th Signal	Taumarson Rd & Myra Rd - Signal - AM	Signal	0.24	13.6	B
Sidra	Myra Rd & Highland Rd - Roundabout - AM	Roundabout	0.13	3.6	A
Sidra	Taumarson Rd & Myra Rd - Roundabout - AM	Roundabout	0.20	4.1	A
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - TWSC - PM	TWSC	0.18	13.1	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - TWSC - PM	TWSC	0.56	20.4	C
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - AWSC - PM	AWSC	0.46	11.5	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - AWSC - PM	AWSC	0.53	13.2	B
Synchro HCM 6th Signal	Myra Rd & Highland Rd - Signal - PM	Signal	0.46	5.1	A
Synchro HCM 6th Signal	Taumarson Rd & Myra Rd - Signal - PM	Signal	0.42	10.5	B
Sidra	Myra Rd & Highland Rd - Roundabout - PM	Roundabout	0.27	4.7	A
Sidra	Taumarson Rd & Myra Rd - Roundabout - PM	Roundabout	0.31	5.3	A

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	20	5	5	15	45	5	140	5	30	90	5
Future Vol, veh/h	5	20	5	5	15	45	5	140	5	30	90	5
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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	24	6	6	18	53	6	165	6	35	106	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	395	362	109	374	362	168	112	0	0	171	0	0
Stage 1	179	179	-	180	180	-	-	-	-	-	-	-
Stage 2	216	183	-	194	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	568	569	950	587	569	881	1490	-	-	1418	-	-
Stage 1	827	755	-	826	754	-	-	-	-	-	-	-
Stage 2	791	752	-	812	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	509	552	950	552	552	881	1490	-	-	1418	-	-
Mov Cap-2 Maneuver	509	552	-	552	552	-	-	-	-	-	-	-
Stage 1	824	735	-	823	751	-	-	-	-	-	-	-
Stage 2	723	749	-	761	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.5	10.4	0.2	1.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1490	-	-	585	744	1418	-	-
HCM Lane V/C Ratio	0.004	-	-	0.06	0.103	0.025	-	-
HCM Control Delay (s/veh)	7.4	0	-	11.5	10.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.2	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	125	120	125	85	15
Future Vol, veh/h	25	125	120	125	85	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	139	133	139	94	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	272	0	-	0	398	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	195	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1291	-	-	-	607	838
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1291	-	-	-	592	838
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.3	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1291	-	-	-	619
HCM Lane V/C Ratio	0.022	-	-	-	0.18
HCM Control Delay (s/veh)	7.9	0	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	0.7

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	5	25	5	5	25	60	5	215	5	75	245	5
Future Vol, veh/h	5	25	5	5	25	60	5	215	5	75	245	5
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	28	6	6	28	67	6	239	6	83	272	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	743	698	275	712	698	242	278	0	0	245	0	0
Stage 1	441	441	-	254	254	-	-	-	-	-	-	-
Stage 2	302	257	-	458	444	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	334	367	769	350	367	802	1296	-	-	1333	-	-
Stage 1	599	580	-	755	701	-	-	-	-	-	-	-
Stage 2	712	699	-	587	579	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	270	338	769	306	338	802	1296	-	-	1333	-	-
Mov Cap-2 Maneuver	270	338	-	306	338	-	-	-	-	-	-	-
Stage 1	596	537	-	751	697	-	-	-	-	-	-	-
Stage 2	624	696	-	512	536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	16.4	13.1	0.2	1.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1296	-	-	354	545	1333	-	-
HCM Lane V/C Ratio	0.004	-	-	0.11	0.183	0.063	-	-
HCM Control Delay (s/veh)	7.8	0	-	16.4	13.1	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.4	0.7	0.2	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	140	175	190	220	35
Future Vol, veh/h	35	140	175	190	220	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	156	194	211	244	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	405	0	-	0	534	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	234	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1154	-	-	-	507	740
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1154	-	-	-	488	740
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	805	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.6	0	20.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1154	-	-	-	512
HCM Lane V/C Ratio	0.034	-	-	-	0.553
HCM Control Delay (s/veh)	8.2	0	-	-	20.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q (veh)	0.1	-	-	-	3.3

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	5	20	5	5	15	45	5	140	5	30	90	5
Future Vol, veh/h	5	20	5	5	15	45	5	140	5	30	90	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	24	6	6	18	53	6	165	6	35	106	6
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, s/veh	7.9	7.7	8.5	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	17%	8%	24%
Vol Thru, %	93%	67%	23%	72%
Vol Right, %	3%	17%	69%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	30	65	125
LT Vol	5	5	5	30
Through Vol	140	20	15	90
RT Vol	5	5	45	5
Lane Flow Rate	176	35	76	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.211	0.046	0.091	0.178
Departure Headway (Hd)	4.296	4.643	4.263	4.362
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	772	842	825
Service Time	2.312	2.664	2.281	2.379
HCM Lane V/C Ratio	0.21	0.045	0.09	0.178
HCM Control Delay, s/veh	8.5	7.9	7.7	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.1	0.3	0.6

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	125	120	125	85	15
Future Vol, veh/h	25	125	120	125	85	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	139	133	139	94	17
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.7	9	8.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	0%	85%
Vol Thru, %	83%	49%	0%
Vol Right, %	0%	51%	15%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	150	245	100
LT Vol	25	0	85
Through Vol	125	120	0
RT Vol	0	125	15
Lane Flow Rate	167	272	111
Geometry Grp	1	1	1
Degree of Util (X)	0.209	0.31	0.153
Departure Headway (Hd)	4.525	4.098	4.954
Convergence, Y/N	Yes	Yes	Yes
Cap	793	879	724
Service Time	2.548	2.116	2.984
HCM Lane V/C Ratio	0.211	0.309	0.153
HCM Control Delay, s/veh	8.7	9	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	1.3	0.5

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	5	25	5	5	25	60	5	215	5	75	245	5
Future Vol, veh/h	5	25	5	5	25	60	5	215	5	75	245	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	28	6	6	28	67	6	239	6	83	272	6
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, s/veh	8.8	8.8	9.9	11.5
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	14%	6%	23%
Vol Thru, %	96%	71%	28%	75%
Vol Right, %	2%	14%	67%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	35	90	325
LT Vol	5	5	5	75
Through Vol	215	25	25	245
RT Vol	5	5	60	5
Lane Flow Rate	250	39	100	361
Geometry Grp	1	1	1	1
Degree of Util (X)	0.323	0.058	0.137	0.458
Departure Headway (Hd)	4.644	5.375	4.945	4.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	770	661	720	787
Service Time	2.692	3.451	3.011	2.613
HCM Lane V/C Ratio	0.325	0.059	0.139	0.459
HCM Control Delay, s/veh	9.9	8.8	8.8	11.5
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.4	0.2	0.5	2.4

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

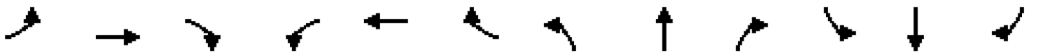
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	140	175	190	220	35
Future Vol, veh/h	35	140	175	190	220	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	156	194	211	244	39
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	10.5	13.2	12.7
HCM LOS	B	B	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	86%
Vol Thru, %	80%	48%	0%
Vol Right, %	0%	52%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	175	365	255
LT Vol	35	0	220
Through Vol	140	175	0
RT Vol	0	190	35
Lane Flow Rate	194	406	283
Geometry Grp	1	1	1
Degree of Util (X)	0.289	0.537	0.433
Departure Headway (Hd)	5.343	4.766	5.502
Convergence, Y/N	Yes	Yes	Yes
Cap	673	762	655
Service Time	3.375	2.766	3.533
HCM Lane V/C Ratio	0.288	0.533	0.432
HCM Control Delay, s/veh	10.5	13.2	12.7
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.2	3.2	2.2

HCM 6th Signalized Intersection Summary
1: Myra Rd & Highland Rd

06/18/2024



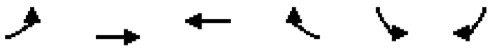
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	5	20	5	5	15	45	5	140	5	30	90	5
Future Volume (veh/h)	5	20	5	5	15	45	5	140	5	30	90	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1870	1900	1900	1870	1900
Adj Flow Rate, veh/h	6	24	6	6	18	53	6	165	6	35	106	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0	0	2	0
Cap, veh/h	105	106	25	89	35	94	90	1291	46	327	944	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	201	1300	300	87	431	1145	16	1773	63	320	1296	69
Grp Volume(v), veh/h	36	0	0	77	0	0	177	0	0	147	0	0
Grp Sat Flow(s),veh/h/ln	1801	0	0	1663	0	0	1852	0	0	1685	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	2.1	0.0	0.0	1.4	0.0	0.0	1.1	0.0	0.0
Prop In Lane	0.17		0.17	0.08		0.69	0.03		0.03	0.24		0.04
Lane Grp Cap(c), veh/h	236	0	0	218	0	0	1427	0	0	1321	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.35	0.00	0.00	0.12	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	1063	0	0	1006	0	0	1427	0	0	1321	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.4	0.0	0.0	20.9	0.0	0.0	1.9	0.0	0.0	1.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.8	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.7	0.0	0.0	21.9	0.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		36			77			177			147	
Approach Delay, s/veh		20.7			21.9			2.1			2.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		8.4		39.0		8.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		26.5		34.5		26.5				
Max Q Clear Time (g_c+I1), s		3.4		2.9		3.1		4.1				
Green Ext Time (p_c), s		1.0		0.1		0.9		0.3				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			7.1									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
2: Taumarson Rd & Myra Rd

06/18/2024



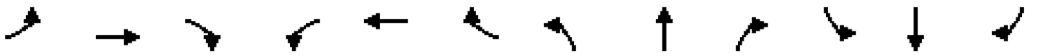
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	125	120	125	85	15
Future Volume (veh/h)	25	125	120	125	85	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	139	133	139	94	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	306	667	183	191	771	686
Arrive On Green	0.03	0.36	0.22	0.22	0.43	0.43
Sat Flow, veh/h	1781	1870	838	875	1781	1585
Grp Volume(v), veh/h	28	139	0	272	94	17
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1713	1781	1585
Q Serve(g_s), s	0.5	2.2	0.0	6.3	1.4	0.3
Cycle Q Clear(g_c), s	0.5	2.2	0.0	6.3	1.4	0.3
Prop In Lane	1.00			0.51	1.00	1.00
Lane Grp Cap(c), veh/h	306	667	0	374	771	686
V/C Ratio(X)	0.09	0.21	0.00	0.73	0.12	0.02
Avail Cap(c_a), veh/h	455	1203	0	721	771	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	9.6	0.0	15.5	7.3	7.0
Incr Delay (d2), s/veh	0.1	0.2	0.0	2.7	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	2.4	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.7	9.7	0.0	18.2	7.6	7.0
LnGrp LOS	B	A		B	A	A
Approach Vol, veh/h		167	272		111	
Approach Delay, s/veh		10.0	18.2		7.5	
Approach LOS		B	B		A	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	19.8	23.0	5.9	13.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	18.5	5.0	18.0
Max Q Clear Time (g_c+I1), s	4.2	3.4	2.5	8.3
Green Ext Time (p_c), s	0.7	0.2	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	13.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: Myra Rd & Highland Rd

06/18/2024



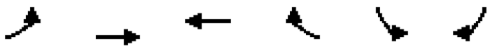
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (veh/h)	5	25	5	5	25	60	5	215	5	75	245	5
Future Volume (veh/h)	5	25	5	5	25	60	5	215	5	75	245	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1870	1900	1900	1870	1900
Adj Flow Rate, veh/h	6	28	6	6	28	67	6	239	6	83	272	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0	0	2	0
Cap, veh/h	249	179	37	212	66	153	200	696	17	330	553	11
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	229	1295	269	85	478	1108	16	1791	44	251	1424	28
Grp Volume(v), veh/h	40	0	0	101	0	0	251	0	0	361	0	0
Grp Sat Flow(s),veh/h/ln	1792	0	0	1670	0	0	1851	0	0	1703	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.1	0.0	0.0	1.8	0.0	0.0	2.9	0.0	0.0
Prop In Lane	0.15		0.15	0.06		0.66	0.02		0.02	0.23		0.02
Lane Grp Cap(c), veh/h	465	0	0	431	0	0	913	0	0	895	0	0
V/C Ratio(X)	0.09	0.00	0.00	0.23	0.00	0.00	0.27	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	2283	0	0	2172	0	0	3911	0	0	3551	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	7.5	0.0	0.0	4.1	0.0	0.0	4.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.3	0.0	0.0	7.8	0.0	0.0	4.3	0.0	0.0	4.7	0.0	0.0
LnGrp LOS	A			A			A			A		
Approach Vol, veh/h		40			101			251			361	
Approach Delay, s/veh		7.3			7.8			4.3			4.7	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.9		7.1		11.9		7.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		38.5		22.5		38.5		22.5				
Max Q Clear Time (g_c+I1), s		3.8		2.4		4.9		3.1				
Green Ext Time (p_c), s		1.6		0.1		2.5		0.5				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			5.1									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
2: Taumarson Rd & Myra Rd

06/18/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	140	175	190	220	35
Future Volume (veh/h)	35	140	175	190	220	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	156	194	211	244	39
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	419	955	266	289	372	331
Arrive On Green	0.05	0.51	0.32	0.32	0.21	0.21
Sat Flow, veh/h	1781	1870	819	891	1781	1585
Grp Volume(v), veh/h	39	156	0	405	244	39
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1710	1781	1585
Q Serve(g_s), s	0.4	1.4	0.0	6.7	4.0	0.6
Cycle Q Clear(g_c), s	0.4	1.4	0.0	6.7	4.0	0.6
Prop In Lane	1.00			0.52	1.00	1.00
Lane Grp Cap(c), veh/h	419	955	0	555	372	331
V/C Ratio(X)	0.09	0.16	0.00	0.73	0.66	0.12
Avail Cap(c_a), veh/h	615	1602	0	959	1027	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	4.2	0.0	9.6	11.6	10.3
Incr Delay (d2), s/veh	0.1	0.1	0.0	1.9	2.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.0	2.0	1.4	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.6	4.3	0.0	11.4	13.6	10.5
LnGrp LOS	A	A		B	B	B
Approach Vol, veh/h		195	405		283	
Approach Delay, s/veh		4.7	11.4		13.2	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			20.9		11.2	6.0	14.9
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			27.5		18.5	5.0	18.0
Max Q Clear Time (g_c+I1), s			3.4		6.0	2.4	8.7
Green Ext Time (p_c), s			0.8		0.7	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	10.5
HCM 6th LOS	B

MOVEMENT SUMMARY

Site: 101 [Myra Road and Highland Road AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Highland - Year of Opening 2025
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Myra Road															
3	L2	All MCs	5	0.0	5	0.0	0.128	3.7	LOS A	0.6	15.1	0.19	0.07	0.19	33.4
8	T1	All MCs	152	2.0	152	2.0	0.128	3.8	LOS A	0.6	15.1	0.19	0.07	0.19	34.0
18	R2	All MCs	5	0.0	5	0.0	0.128	3.7	LOS A	0.6	15.1	0.19	0.07	0.19	33.8
Approach			163	1.9	163	1.9	0.128	3.8	LOS A	0.6	15.1	0.19	0.07	0.19	33.9
East: Highland Road															
1	L2	All MCs	5	0.0	5	0.0	0.061	3.6	LOS A	0.3	6.5	0.31	0.16	0.31	33.4
6	T1	All MCs	16	0.0	16	0.0	0.061	3.6	LOS A	0.3	6.5	0.31	0.16	0.31	34.1
16	R2	All MCs	49	0.0	49	0.0	0.061	3.6	LOS A	0.3	6.5	0.31	0.16	0.31	33.8
Approach			71	0.0	71	0.0	0.061	3.6	LOS A	0.3	6.5	0.31	0.16	0.31	33.8
North: Myra Road															
7	L2	All MCs	33	0.0	33	0.0	0.103	3.4	LOS A	0.5	11.9	0.11	0.03	0.11	33.1
4	T1	All MCs	98	2.0	98	2.0	0.103	3.5	LOS A	0.5	11.9	0.11	0.03	0.11	33.7
14	R2	All MCs	5	0.0	5	0.0	0.103	3.4	LOS A	0.5	11.9	0.11	0.03	0.11	33.5
Approach			136	1.4	136	1.4	0.103	3.4	LOS A	0.5	11.9	0.11	0.03	0.11	33.5
West: Highland Road															
5	L2	All MCs	5	0.0	5	0.0	0.027	3.2	LOS A	0.1	2.9	0.27	0.13	0.27	33.4
2	T1	All MCs	22	0.0	22	0.0	0.027	3.2	LOS A	0.1	2.9	0.27	0.13	0.27	34.0
12	R2	All MCs	5	0.0	5	0.0	0.027	3.2	LOS A	0.1	2.9	0.27	0.13	0.27	33.8
Approach			33	0.0	33	0.0	0.027	3.2	LOS A	0.1	2.9	0.27	0.13	0.27	33.9
All Vehicles			402	1.2	402	1.2	0.128	3.6	LOS A	0.6	15.1	0.19	0.08	0.19	33.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Myra Road and Taumarson Road AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Taumarson - Year of Opening 2025
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
East: Taumarson Road															
6	T1	All MCs	130	2.0	130	2.0	0.202	4.2	LOS A	1.0	26.2	0.13	0.03	0.13	33.8
16	R2	All MCs	136	2.0	136	2.0	0.202	4.2	LOS A	1.0	26.2	0.13	0.03	0.13	33.6
Approach			266	2.0	266	2.0	0.202	4.2	LOS A	1.0	26.2	0.13	0.03	0.13	33.7
North: Myra Road															
7	L2	All MCs	92	2.0	92	2.0	0.092	3.8	LOS A	0.4	10.3	0.28	0.14	0.28	31.6
14	R2	All MCs	16	2.0	16	2.0	0.092	3.8	LOS A	0.4	10.3	0.28	0.14	0.28	31.9
Approach			109	2.0	109	2.0	0.092	3.8	LOS A	0.4	10.3	0.28	0.14	0.28	31.7
West: Taumarson Road															
5	L2	All MCs	27	2.0	27	2.0	0.133	4.0	LOS A	0.6	15.5	0.24	0.10	0.24	32.9
2	T1	All MCs	136	2.0	136	2.0	0.133	4.0	LOS A	0.6	15.5	0.24	0.10	0.24	33.6
Approach			163	2.0	163	2.0	0.133	4.0	LOS A	0.6	15.5	0.24	0.10	0.24	33.5
All Vehicles			538	2.0	538	2.0	0.202	4.1	LOS A	1.0	26.2	0.19	0.08	0.19	33.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Myra Road and Highland Road PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Highland - Year of Opening 2025
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Myra Road															
3	L2	All MCs	5	0.0	5	0.0	0.203	4.6	LOS A	1.0	25.5	0.29	0.13	0.29	33.0
8	T1	All MCs	234	2.0	234	2.0	0.203	4.7	LOS A	1.0	25.5	0.29	0.13	0.29	33.5
18	R2	All MCs	5	0.0	5	0.0	0.203	4.6	LOS A	1.0	25.5	0.29	0.13	0.29	33.3
Approach			245	1.9	245	1.9	0.203	4.7	LOS A	1.0	25.5	0.29	0.13	0.29	33.5
East: Highland Road															
1	L2	All MCs	5	0.0	5	0.0	0.091	4.1	LOS A	0.4	9.9	0.39	0.24	0.39	33.2
6	T1	All MCs	27	0.0	27	0.0	0.091	4.1	LOS A	0.4	9.9	0.39	0.24	0.39	33.8
16	R2	All MCs	65	0.0	65	0.0	0.091	4.1	LOS A	0.4	9.9	0.39	0.24	0.39	33.6
Approach			98	0.0	98	0.0	0.091	4.1	LOS A	0.4	9.9	0.39	0.24	0.39	33.6
North: Myra Road															
7	L2	All MCs	82	0.0	82	0.0	0.270	4.8	LOS A	1.5	38.0	0.17	0.05	0.17	32.4
4	T1	All MCs	266	2.0	266	2.0	0.270	4.9	LOS A	1.5	38.0	0.17	0.05	0.17	33.0
14	R2	All MCs	5	0.0	5	0.0	0.270	4.8	LOS A	1.5	38.0	0.17	0.05	0.17	32.8
Approach			353	1.5	353	1.5	0.270	4.9	LOS A	1.5	38.0	0.17	0.05	0.17	32.8
West: Highland Road															
5	L2	All MCs	5	0.0	5	0.0	0.040	4.1	LOS A	0.2	4.1	0.44	0.31	0.44	33.0
2	T1	All MCs	27	0.0	27	0.0	0.040	4.1	LOS A	0.2	4.1	0.44	0.31	0.44	33.6
12	R2	All MCs	5	0.0	5	0.0	0.040	4.1	LOS A	0.2	4.1	0.44	0.31	0.44	33.4
Approach			38	0.0	38	0.0	0.040	4.1	LOS A	0.2	4.1	0.44	0.31	0.44	33.5
All Vehicles			734	1.4	734	1.4	0.270	4.7	LOS A	1.5	38.0	0.25	0.12	0.25	33.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Myra Road and Taumarson Road PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Taumarson - Year of Opening 2025
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
East: Taumarson Road															
6	T1	All MCs	190	2.0	190	2.0	0.305	5.2	LOS A	1.8	44.9	0.18	0.05	0.18	33.3
16	R2	All MCs	207	2.0	207	2.0	0.305	5.2	LOS A	1.8	44.9	0.18	0.05	0.18	33.1
Approach			397	2.0	397	2.0	0.305	5.2	LOS A	1.8	44.9	0.18	0.05	0.18	33.2
North: Myra Road															
7	L2	All MCs	239	2.0	239	2.0	0.250	5.5	LOS A	1.3	31.9	0.40	0.23	0.40	30.8
14	R2	All MCs	38	2.0	38	2.0	0.250	5.5	LOS A	1.3	31.9	0.40	0.23	0.40	31.2
Approach			277	2.0	277	2.0	0.250	5.5	LOS A	1.3	31.9	0.40	0.23	0.40	30.9
West: Taumarson Road															
5	L2	All MCs	38	2.0	38	2.0	0.181	5.1	LOS A	0.8	21.1	0.41	0.26	0.41	32.4
2	T1	All MCs	152	2.0	152	2.0	0.181	5.1	LOS A	0.8	21.1	0.41	0.26	0.41	33.0
Approach			190	2.0	190	2.0	0.181	5.1	LOS A	0.8	21.1	0.41	0.26	0.41	32.8
All Vehicles			864	2.0	864	2.0	0.305	5.3	LOS A	1.8	44.9	0.30	0.15	0.30	32.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Myra Road - Additional Analysis
2045 Future Year Results

Inputs in yellow

Summary Table

Software/Method	Intersection	Control Type	V/C Ratio	Delay	LOS
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - TWSC - AM	TWSC	0.14	11.3	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - TWSC - AM	TWSC	0.26	13.8	B
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - AWSC - AM	AWSC	0.28	9.1	A
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - AWSC - AM	AWSC	0.42	10.4	B
Synchro HCM 6th Signal	Myra Rd & Highland Rd - Signal - AM	Signal	0.43	7.4	A
Synchro HCM 6th Signal	Taumarson Rd & Myra Rd - Signal - AM	Signal	0.30	14.1	B
Sidra	Myra Rd & Highland Rd - Roundabout - AM	Roundabout	0.16	3.9	A
Sidra	Taumarson Rd & Myra Rd - Roundabout - AM	Roundabout	0.27	4.6	A
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - TWSC - PM	TWSC	0.25	14.5	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - TWSC - PM	TWSC	0.73	31.7	D
Synchro HCM 6th Stop Control	Myra Rd & Highland Rd - AWSC - PM	AWSC	0.52	12.8	B
Synchro HCM 6th Stop Control	Taumarson Rd & Myra Rd - AWSC - PM	AWSC	0.65	17.2	C
Synchro HCM 6th Signal	Myra Rd & Highland Rd - Signal - PM	Signal	0.48	5.4	A
Synchro HCM 6th Signal	Taumarson Rd & Myra Rd - Signal - PM	Signal	0.47	11.1	B
Sidra	Myra Rd & Highland Rd - Roundabout - PM	Roundabout	0.30	5.0	A
Sidra	Taumarson Rd & Myra Rd - Roundabout - PM	Roundabout	0.35	5.9	A

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	20	10	10	20	50	10	170	10	30	110	10
Future Vol, veh/h	10	20	10	10	20	50	10	170	10	30	110	10
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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	12	24	12	12	24	59	12	200	12	35	129	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	477	441	135	453	441	206	141	0	0	212	0	0
Stage 1	205	205	-	230	230	-	-	-	-	-	-	-
Stage 2	272	236	-	223	211	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	502	513	919	520	513	840	1455	-	-	1370	-	-
Stage 1	802	736	-	777	718	-	-	-	-	-	-	-
Stage 2	738	713	-	784	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	437	494	919	481	494	840	1455	-	-	1370	-	-
Mov Cap-2 Maneuver	437	494	-	481	494	-	-	-	-	-	-	-
Stage 1	795	715	-	770	712	-	-	-	-	-	-	-
Stage 2	658	707	-	728	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.3	11.3	0.4	1.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	539	662	1370	-	-
HCM Lane V/C Ratio	0.008	-	-	0.087	0.142	0.026	-	-
HCM Control Delay (s/veh)	7.5	0	-	12.3	11.3	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.3	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	160	160	160	100	30
Future Vol, veh/h	30	160	160	160	100	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	178	178	178	111	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	356	0	-	0	511	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1203	-	-	-	523	772
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1203	-	-	-	507	772
Mov Cap-2 Maneuver	-	-	-	-	507	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.3	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1203	-	-	-	551
HCM Lane V/C Ratio	0.028	-	-	-	0.262
HCM Control Delay (s/veh)	8.1	0	-	-	13.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	30	10	10	30	70	10	210	10	80	270	10
Future Vol, veh/h	10	30	10	10	30	70	10	210	10	80	270	10
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	11	33	11	11	33	78	11	233	11	89	300	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	800	750	306	767	750	239	311	0	0	244	0	0
Stage 1	484	484	-	261	261	-	-	-	-	-	-	-
Stage 2	316	266	-	506	489	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	306	342	739	322	342	805	1261	-	-	1334	-	-
Stage 1	568	555	-	748	696	-	-	-	-	-	-	-
Stage 2	699	692	-	552	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	237	311	739	271	311	805	1261	-	-	1334	-	-
Mov Cap-2 Maneuver	237	311	-	271	311	-	-	-	-	-	-	-
Stage 1	562	510	-	741	689	-	-	-	-	-	-	-
Stage 2	595	685	-	467	508	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	18.2	14.5	0.3	1.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1261	-	-	329	499	1334	-	-
HCM Lane V/C Ratio	0.009	-	-	0.169	0.245	0.067	-	-
HCM Control Delay (s/veh)	7.9	0	-	18.2	14.5	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.6	1	0.2	-	-

Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	180	230	190	240	50
Future Vol, veh/h	40	180	230	190	240	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	200	256	211	267	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	650	362
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	434	683
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	761	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	414	683
Mov Cap-2 Maneuver	-	-	-	-	414	-
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.5	0	31.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	444
HCM Lane V/C Ratio	0.041	-	-	-	0.726
HCM Control Delay (s/veh)	8.4	0	-	-	31.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q (veh)	0.1	-	-	-	5.8

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	20	10	10	20	50	10	170	10	30	110	10
Future Vol, veh/h	10	20	10	10	20	50	10	170	10	30	110	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	12	24	12	12	24	59	12	200	12	35	129	12
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, s/veh	8.2	8.1	9.1	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	25%	13%	20%
Vol Thru, %	89%	50%	25%	73%
Vol Right, %	5%	25%	63%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	40	80	150
LT Vol	10	10	10	30
Through Vol	170	20	20	110
RT Vol	10	10	50	10
Lane Flow Rate	224	47	94	176
Geometry Grp	1	1	1	1
Degree of Util (X)	0.274	0.063	0.118	0.219
Departure Headway (Hd)	4.405	4.818	4.509	4.475
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	816	743	794	803
Service Time	2.43	2.854	2.541	2.501
HCM Lane V/C Ratio	0.275	0.063	0.118	0.219
HCM Control Delay, s/veh	9.1	8.2	8.1	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.2	0.4	0.8

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	160	160	160	100	30
Future Vol, veh/h	30	160	160	160	100	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	178	178	178	111	33
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.6	10.4	9.6
HCM LOS	A	B	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	0%	77%
Vol Thru, %	84%	50%	0%
Vol Right, %	0%	50%	23%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	190	320	130
LT Vol	30	0	100
Through Vol	160	160	0
RT Vol	0	160	30
Lane Flow Rate	211	356	144
Geometry Grp	1	1	1
Degree of Util (X)	0.277	0.421	0.208
Departure Headway (Hd)	4.719	4.261	5.175
Convergence, Y/N	Yes	Yes	Yes
Cap	758	843	690
Service Time	2.764	2.298	3.233
HCM Lane V/C Ratio	0.278	0.422	0.209
HCM Control Delay, s/veh	9.6	10.4	9.6
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.1	2.1	0.8

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	30	10	10	30	70	10	210	10	80	270	10
Future Vol, veh/h	10	30	10	10	30	70	10	210	10	80	270	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	11	33	11	11	33	78	11	233	11	89	300	11
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, s/veh	9.2	9.3	10.4	12.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	20%	9%	22%
Vol Thru, %	91%	60%	27%	75%
Vol Right, %	4%	20%	64%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	50	110	360
LT Vol	10	10	10	80
Through Vol	210	30	30	270
RT Vol	10	10	70	10
Lane Flow Rate	256	56	122	400
Geometry Grp	1	1	1	1
Degree of Util (X)	0.341	0.087	0.174	0.521
Departure Headway (Hd)	4.806	5.626	5.12	4.687
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	741	641	692	764
Service Time	2.884	3.626	3.218	2.757
HCM Lane V/C Ratio	0.345	0.087	0.176	0.524
HCM Control Delay, s/veh	10.4	9.2	9.3	12.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.5	0.3	0.6	3.1

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

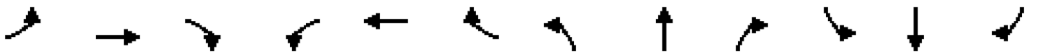
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	180	230	190	240	50
Future Vol, veh/h	40	180	230	190	240	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	200	256	211	267	56
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	12.2	17.2	15
HCM LOS	B	C	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	0%	83%
Vol Thru, %	82%	55%	0%
Vol Right, %	0%	45%	17%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	220	420	290
LT Vol	40	0	240
Through Vol	180	230	0
RT Vol	0	190	50
Lane Flow Rate	244	467	322
Geometry Grp	1	1	1
Degree of Util (X)	0.383	0.654	0.52
Departure Headway (Hd)	5.636	5.045	5.808
Convergence, Y/N	Yes	Yes	Yes
Cap	636	714	619
Service Time	3.687	3.089	3.852
HCM Lane V/C Ratio	0.384	0.654	0.52
HCM Control Delay, s/veh	12.2	17.2	15
HCM Lane LOS	B	C	B
HCM 95th-tile Q	1.8	4.9	3

HCM 6th Signalized Intersection Summary
1: Myra Rd & Highland Rd

06/19/2024



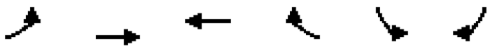
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	10	10	20	50	10	170	10	30	110	10
Future Volume (veh/h)	10	20	10	10	20	50	10	170	10	30	110	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1870	1900	1900	1870	1900
Adj Flow Rate, veh/h	12	24	12	12	24	59	12	200	12	35	129	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0	0	2	0
Cap, veh/h	122	92	40	98	44	93	105	1227	71	273	958	84
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	307	1021	443	145	484	1032	36	1700	98	254	1328	116
Grp Volume(v), veh/h	48	0	0	95	0	0	224	0	0	176	0	0
Grp Sat Flow(s),veh/h/ln	1771	0	0	1661	0	0	1835	0	0	1698	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	2.6	0.0	0.0	1.8	0.0	0.0	1.4	0.0	0.0
Prop In Lane	0.25		0.25	0.13		0.62	0.05		0.05	0.20		0.07
Lane Grp Cap(c), veh/h	254	0	0	235	0	0	1403	0	0	1315	0	0
V/C Ratio(X)	0.19	0.00	0.00	0.41	0.00	0.00	0.16	0.00	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	1020	0	0	996	0	0	1403	0	0	1315	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	21.0	0.0	0.0	2.1	0.0	0.0	2.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.1	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.7	0.0	0.0	22.1	0.0	0.0	2.4	0.0	0.0	2.3	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		48			95			224			176	
Approach Delay, s/veh		20.7			22.1			2.4			2.3	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		8.8		39.0		8.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		26.5		34.5		26.5				
Max Q Clear Time (g_c+I1), s		3.8		3.2		3.4		4.6				
Green Ext Time (p_c), s		1.4		0.2		1.1		0.5				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		7.4
HCM 6th LOS		A

HCM 6th Signalized Intersection Summary
2: Taumarson Rd & Myra Rd

06/19/2024



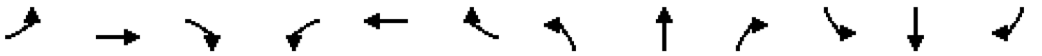
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	160	160	160	100	30
Future Volume (veh/h)	30	160	160	160	100	30
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	178	178	178	111	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	300	751	227	227	713	635
Arrive On Green	0.04	0.40	0.26	0.26	0.40	0.40
Sat Flow, veh/h	1781	1870	858	858	1781	1585
Grp Volume(v), veh/h	33	178	0	356	111	33
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1716	1781	1585
Q Serve(g_s), s	0.6	2.9	0.0	8.7	1.8	0.6
Cycle Q Clear(g_c), s	0.6	2.9	0.0	8.7	1.8	0.6
Prop In Lane	1.00			0.50	1.00	1.00
Lane Grp Cap(c), veh/h	300	751	0	455	713	635
V/C Ratio(X)	0.11	0.24	0.00	0.78	0.16	0.05
Avail Cap(c_a), veh/h	429	1144	0	691	713	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	9.0	0.0	15.5	8.7	8.3
Incr Delay (d2), s/veh	0.2	0.2	0.0	3.3	0.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.0	3.3	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.4	9.2	0.0	18.8	9.2	8.5
LnGrp LOS	B	A		B	A	A
Approach Vol, veh/h		211	356		144	
Approach Delay, s/veh		9.5	18.8		9.0	
Approach LOS		A	B		A	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			22.7		22.7	6.2	16.5
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			27.8		18.2	5.0	18.3
Max Q Clear Time (g_c+I1), s			4.9		3.8	2.6	10.7
Green Ext Time (p_c), s			0.9		0.3	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	14.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: Myra Rd & Highland Rd

06/19/2024



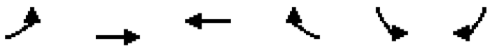
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	30	10	10	30	70	10	210	10	80	270	10
Future Volume (veh/h)	10	30	10	10	30	70	10	210	10	80	270	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1870	1900	1900	1870	1900
Adj Flow Rate, veh/h	11	33	11	11	33	78	11	233	11	89	300	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0	0	2	0
Cap, veh/h	252	176	54	209	75	165	195	700	32	313	574	19
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	267	1139	352	115	486	1065	30	1725	79	243	1416	47
Grp Volume(v), veh/h	55	0	0	122	0	0	255	0	0	400	0	0
Grp Sat Flow(s),veh/h/ln	1758	0	0	1666	0	0	1834	0	0	1705	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.0	1.4	0.0	0.0	1.9	0.0	0.0	3.4	0.0	0.0
Prop In Lane	0.20		0.20	0.09		0.64	0.04		0.04	0.22		0.03
Lane Grp Cap(c), veh/h	483	0	0	450	0	0	927	0	0	907	0	0
V/C Ratio(X)	0.11	0.00	0.00	0.27	0.00	0.00	0.27	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	1990	0	0	1929	0	0	3665	0	0	3386	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.5	0.0	0.0	7.9	0.0	0.0	4.2	0.0	0.0	4.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.6	0.0	0.0	8.2	0.0	0.0	4.4	0.0	0.0	5.0	0.0	0.0
LnGrp LOS	A			A			A			A		
Approach Vol, veh/h		55			122			255			400	
Approach Delay, s/veh		7.6			8.2			4.4			5.0	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.8		7.7		12.8		7.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		39.5		21.5		39.5		21.5				
Max Q Clear Time (g_c+I1), s		3.9		2.5		5.4		3.4				
Green Ext Time (p_c), s		1.6		0.2		2.9		0.6				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		5.4
HCM 6th LOS		A

HCM 6th Signalized Intersection Summary
2: Taumarson Rd & Myra Rd

06/19/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	180	230	190	240	50
Future Volume (veh/h)	40	180	230	190	240	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	200	256	211	267	56
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	402	999	341	281	384	342
Arrive On Green	0.05	0.53	0.36	0.36	0.22	0.22
Sat Flow, veh/h	1781	1870	948	782	1781	1585
Grp Volume(v), veh/h	44	200	0	467	267	56
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1730	1781	1585
Q Serve(g_s), s	0.5	2.0	0.0	8.5	5.0	1.0
Cycle Q Clear(g_c), s	0.5	2.0	0.0	8.5	5.0	1.0
Prop In Lane	1.00			0.45	1.00	1.00
Lane Grp Cap(c), veh/h	402	999	0	622	384	342
V/C Ratio(X)	0.11	0.20	0.00	0.75	0.70	0.16
Avail Cap(c_a), veh/h	567	1669	0	1082	936	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.9	4.4	0.0	10.1	13.0	11.5
Incr Delay (d2), s/veh	0.1	0.1	0.0	1.8	2.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.4	0.0	2.6	1.8	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.0	4.5	0.0	11.9	15.3	11.7
LnGrp LOS	A	A		B	B	B
Approach Vol, veh/h		244	467		323	
Approach Delay, s/veh		4.9	11.9		14.7	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			23.7		12.3	6.3	17.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			32.1		18.9	5.1	22.5
Max Q Clear Time (g_c+I1), s			4.0		7.0	2.5	10.5
Green Ext Time (p_c), s			1.1		0.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	11.1
HCM 6th LOS	B

MOVEMENT SUMMARY

Site: 101 [Myra Road and Highland Road AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Highland - Future 2045
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Myra Road															
3	L2	All MCs	11	0.0	11	0.0	0.163	4.0	LOS A	0.8	19.9	0.20	0.08	0.20	33.2
8	T1	All MCs	185	2.0	185	2.0	0.163	4.1	LOS A	0.8	19.9	0.20	0.08	0.20	33.8
18	R2	All MCs	11	0.0	11	0.0	0.163	4.0	LOS A	0.8	19.9	0.20	0.08	0.20	33.6
Approach			207	1.8	207	1.8	0.163	4.1	LOS A	0.8	19.9	0.20	0.08	0.20	33.7
East: Highland Road															
1	L2	All MCs	11	0.0	11	0.0	0.078	3.9	LOS A	0.3	8.5	0.35	0.21	0.35	33.2
6	T1	All MCs	22	0.0	22	0.0	0.078	3.9	LOS A	0.3	8.5	0.35	0.21	0.35	33.8
16	R2	All MCs	54	0.0	54	0.0	0.078	3.9	LOS A	0.3	8.5	0.35	0.21	0.35	33.5
Approach			87	0.0	87	0.0	0.078	3.9	LOS A	0.3	8.5	0.35	0.21	0.35	33.6
North: Myra Road															
7	L2	All MCs	33	0.0	33	0.0	0.125	3.6	LOS A	0.6	14.8	0.15	0.05	0.15	33.1
4	T1	All MCs	120	2.0	120	2.0	0.125	3.7	LOS A	0.6	14.8	0.15	0.05	0.15	33.6
14	R2	All MCs	11	0.0	11	0.0	0.125	3.6	LOS A	0.6	14.8	0.15	0.05	0.15	33.4
Approach			163	1.5	163	1.5	0.125	3.7	LOS A	0.6	14.8	0.15	0.05	0.15	33.5
West: Highland Road															
5	L2	All MCs	11	0.0	11	0.0	0.037	3.4	LOS A	0.2	3.9	0.30	0.15	0.30	33.1
2	T1	All MCs	22	0.0	22	0.0	0.037	3.4	LOS A	0.2	3.9	0.30	0.15	0.30	33.7
12	R2	All MCs	11	0.0	11	0.0	0.037	3.4	LOS A	0.2	3.9	0.30	0.15	0.30	33.5
Approach			43	0.0	43	0.0	0.037	3.4	LOS A	0.2	3.9	0.30	0.15	0.30	33.5
All Vehicles			500	1.2	500	1.2	0.163	3.9	LOS A	0.8	19.9	0.22	0.10	0.22	33.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Myra Road and Taumarson Road AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Taumarson - Future 2045
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
East: Taumarson Road															
6	T1	All MCs	174	2.0	174	2.0	0.266	4.8	LOS A	1.5	37.2	0.16	0.04	0.16	33.5
16	R2	All MCs	174	2.0	174	2.0	0.266	4.8	LOS A	1.5	37.2	0.16	0.04	0.16	33.3
Approach			348	2.0	348	2.0	0.266	4.8	LOS A	1.5	37.2	0.16	0.04	0.16	33.4
North: Myra Road															
7	L2	All MCs	109	2.0	109	2.0	0.125	4.3	LOS A	0.6	14.2	0.34	0.18	0.34	31.6
14	R2	All MCs	33	2.0	33	2.0	0.125	4.3	LOS A	0.6	14.2	0.34	0.18	0.34	31.9
Approach			141	2.0	141	2.0	0.125	4.3	LOS A	0.6	14.2	0.34	0.18	0.34	31.6
West: Taumarson Road															
5	L2	All MCs	33	2.0	33	2.0	0.171	4.4	LOS A	0.8	20.7	0.27	0.13	0.27	32.8
2	T1	All MCs	174	2.0	174	2.0	0.171	4.4	LOS A	0.8	20.7	0.27	0.13	0.27	33.4
Approach			207	2.0	207	2.0	0.171	4.4	LOS A	0.8	20.7	0.27	0.13	0.27	33.3
All Vehicles			696	2.0	696	2.0	0.266	4.6	LOS A	1.5	37.2	0.23	0.10	0.23	33.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Myra Road and Highland Road PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Highland - Future 2045
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Myra Road															
3	L2	All MCs	11	0.0	11	0.0	0.211	4.7	LOS A	1.0	26.5	0.31	0.15	0.31	32.9
8	T1	All MCs	228	2.0	228	2.0	0.211	4.9	LOS A	1.0	26.5	0.31	0.15	0.31	33.4
18	R2	All MCs	11	0.0	11	0.0	0.211	4.7	LOS A	1.0	26.5	0.31	0.15	0.31	33.2
Approach			250	1.8	250	1.8	0.211	4.8	LOS A	1.0	26.5	0.31	0.15	0.31	33.4
East: Highland Road															
1	L2	All MCs	11	0.0	11	0.0	0.112	4.4	LOS A	0.5	12.4	0.40	0.25	0.40	33.0
6	T1	All MCs	33	0.0	33	0.0	0.112	4.4	LOS A	0.5	12.4	0.40	0.25	0.40	33.6
16	R2	All MCs	76	0.0	76	0.0	0.112	4.4	LOS A	0.5	12.4	0.40	0.25	0.40	33.4
Approach			120	0.0	120	0.0	0.112	4.4	LOS A	0.5	12.4	0.40	0.25	0.40	33.4
North: Myra Road															
7	L2	All MCs	87	0.0	87	0.0	0.304	5.2	LOS A	1.8	44.3	0.22	0.08	0.22	32.3
4	T1	All MCs	293	2.0	293	2.0	0.304	5.4	LOS A	1.8	44.3	0.22	0.08	0.22	32.8
14	R2	All MCs	11	0.0	11	0.0	0.304	5.2	LOS A	1.8	44.3	0.22	0.08	0.22	32.6
Approach			391	1.5	391	1.5	0.304	5.3	LOS A	1.8	44.3	0.22	0.08	0.22	32.7
West: Highland Road															
5	L2	All MCs	11	0.0	11	0.0	0.059	4.4	LOS A	0.2	6.1	0.47	0.35	0.47	32.7
2	T1	All MCs	33	0.0	33	0.0	0.059	4.4	LOS A	0.2	6.1	0.47	0.35	0.47	33.3
12	R2	All MCs	11	0.0	11	0.0	0.059	4.4	LOS A	0.2	6.1	0.47	0.35	0.47	33.1
Approach			54	0.0	54	0.0	0.059	4.4	LOS A	0.2	6.1	0.47	0.35	0.47	33.1
All Vehicles			815	1.3	815	1.3	0.304	5.0	LOS A	1.8	44.3	0.29	0.14	0.29	33.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 102 [Myra Road and Taumarson Road PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Myra/Taumarson - Future 2045
Site Category: NA
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
East: Taumarson Road															
6	T1	All MCs	250	2.0	250	2.0	0.353	5.8	LOS A	2.2	55.3	0.21	0.07	0.21	33.1
16	R2	All MCs	207	2.0	207	2.0	0.353	5.8	LOS A	2.2	55.3	0.21	0.07	0.21	32.8
Approach			457	2.0	457	2.0	0.353	5.8	LOS A	2.2	55.3	0.21	0.07	0.21	33.0
North: Myra Road															
7	L2	All MCs	261	2.0	261	2.0	0.303	6.4	LOS A	1.6	39.7	0.47	0.30	0.47	30.5
14	R2	All MCs	54	2.0	54	2.0	0.303	6.4	LOS A	1.6	39.7	0.47	0.30	0.47	30.9
Approach			315	2.0	315	2.0	0.303	6.4	LOS A	1.6	39.7	0.47	0.30	0.47	30.6
West: Taumarson Road															
5	L2	All MCs	43	2.0	43	2.0	0.233	5.7	LOS A	1.1	28.3	0.45	0.29	0.45	32.1
2	T1	All MCs	196	2.0	196	2.0	0.233	5.7	LOS A	1.1	28.3	0.45	0.29	0.45	32.7
Approach			239	2.0	239	2.0	0.233	5.7	LOS A	1.1	28.3	0.45	0.29	0.45	32.6
All Vehicles			1011	2.0	1011	2.0	0.353	5.9	LOS A	2.2	55.3	0.35	0.19	0.35	32.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
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Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.